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## THE RÖNTGEN RAY DIAGNOSIS OF SURGICAL DISEASES OF THE STOMACH AND DUODENUM.<sup>1</sup>

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The differential diagnosis of chronic diseases of the stomach and duodenum is extremely difficult, and any method, even though it be far from infallible, which will increase the value of the examination, should not be neglected; and any procedure which may determine the advisability or inadvisability of operation, should surely, for the patient's sake, be employed; and just as the X-rays have become essential in the diagnosis, prognosis and treatment of a fracture, so will they become necessary in the case of gastro-intestinal disease. A tumour, like a fracture, may be palpable, but how much better in many cases may its extent be revealed by the silhouette of the opaque meal.

As regards the measures of certainty in diagnosis obtainable by this method, I am not of the view held by some radiographers that it is absolute—how aware am I of errors in diagnosis made by it—but rather am I of the opinion of Lester Leonard that "other methods of physical and chemical diagnosis are not displaced, but are amplified by the knowledge it affords."

I hold that it is usually possible (though not always) to say whether organic disease is present or absent; much more frequent, however, are errors in locating the trouble, as, for instance, the difficulty in separating an ulcer in the immediate pre-pyloric region from one in the first part of the duodenum. Again, on several occasions one pathological condition has been found, yet a second one, accompanying it, but having no connexion with it, has been overlooked, mainly due to the fact that the former would have been sufficient in itself to explain all the symptoms.

As an example of the mistakes that occur, and to illustrate these two points, let me quote the case of a patient who was referred some little time ago to me. This patient was the subject of severe gastric symptoms, which were accompanied by the appearance of a small, hard, fixed mass in the left side of the epigastrium. The findings by the meal examination were such that I diagnosed an ulcer, probably malignant, in the pre-pyloric region. Operation, however, revealed the cause of the lump to be ulceration of the first part of the duodenum. It also showed the presence of a carcinomatous ulcer of the cardiac part, which had escaped detection, because, in finding the duodenal lesion, I had thought that the cause of the whole trouble was established, and had neglected to examine the cardiac part properly.

Still, in spite of numerous errors, my opinion is that this means of diagnosis should be more extensively employed. In support of this view, let me quote William Mayo, who recently wrote that "the Röntgen ray gradually has won first place in the diagnosis of these lesions," and also Barelay, who stated that, as regards diagnosis by this means, "the most noticeable feature is the fact that one no longer hears of the successful diagnoses, but of the failures."

The technique employed will first be briefly discussed. In this series of cases, two methods have been adopted, mainly to economize time. The one adopted by the hospitals is the double six hours interval opaque meal, as advocated by Handek; the other, employed in private practice, is the single opaque meal. In each case bismuth oxychloride is the medium employed to obtain the silhouette. Verification by a second meal is often indispensable.

It is all important that the subjects of such an examination be properly prepared, and to this end the following instructions are given. Firstly, that no medicines, aperient or otherwise, be taken for a period dating from at least 24, better 48, hours before the ingestion of the meal, until the completion of the examination. Secondly, that the patient present himself with his stomach empty, having denied himself both solid and liquid for 12 hours prior to the examination; usually, the patient is told to have supper and to return the following morning without having anything to eat or drink in the mean time. Nothing, of course, is allowed, either to eat or drink, after the ingestion of the meal till its evacuation from the stomach be complete or the diagnosis be determined.

The main method of examination is by the fluorescent screen, and for the last eight months extensive use has been made of a modified Bucky compressor screen diaphragm; plates are taken, if necessary, and for record purposes. I hold that examination by the screen is essential to diagnosis, and that serial radiography will not replace this method, differing here from certain American radiographers. This latter, more recent, process is much more troublesome and expensive, and the vagaries seen often only complicate the diagnosis, although it may have its advantages in certain cases. However, its extreme expense will place it beyond the reach of the average individual in this country.

The examination is carried out with the patient in the vertical position as a rule, although use is made of the horizontal and horizontal right lateral positions if required; the former being of use where the cardiac part is involved, the latter is sometimes essential in duodenal lesions. Recourse to these positions may not always be necessary, because it may be possible to palpate the meal into the pars cardiaca, although no lengthy effort will be made to do this by the careful operator, because of the danger

<sup>1</sup> Read at a meeting of the New South Wales Branch of the British Medical Association, on May 28, 1915.

to himself. Sometimes the procedure of Chilaiditi will obviate the necessity of a ray in the right lateral position, by revealing the duodenal silhouette in a most clear manner.

The examination of the œsophagus does not come within the scope of this work, but in examining the canalization of the stomach during the ingestion of the meal, the former is naturally observed. It must here be pointed out that care should be taken not to overload the stomach, an act which, in itself, may obscure certain diagnostic features.

The shape, position, peristalsis, etc., of the stomach are noted, and the effect and alterations caused by massage and respiration noted. One of the great advantages of the fluorescent screen over radiographs is at once apparent, in that with the former the patient can be turned in various oblique positions, one of which may bring sharply into view an abnormality that a direct antero-posterior ray would possibly not reveal.

The facts to be observed during this examination will now be taken in the following order:—

Shape	Irregularities of outline	Tone, whether hypertonic, orthotonic, hypotonic or atonic.
		Outwardly projecting
Motility	Contraction of whole gastric wall	The notch, and its modification in the perforating ulcer
		The incisura, inroads into lumen (= "thumbing"), with filling defects
		Snail form, acute fish-hook, diffuse infiltrating carcinoma
		Hypertrophies of organs, cysts
Motility	Conditions outside stomach causing irregularity	
Motility	Normal emptying time	
		Increased motility = rapid emptying, and early rapid emptying
Motility	Decreased motility, with small, medium, and large residue at end of six hours	

Peristalsis and antiperistalsis.

Position, especially as regards displacement of pars pylorica.

Mobility, as determined by palpation.

Tender spot.

In certain groups of findings, mention will be made of the test meal and its acidity, as in certain cases it is of great aid in coming to the ultimate diagnosis.

Some of these details just enumerated are best shown by diagrams (partly borrowed from various sources); other will be briefly discussed.

**Tonic Differences in the Form of Loaded Stomach, when erect, in the Male, with emptying time (Fig. 1, 2, 3, 4)**  
—E. Schlesinger.

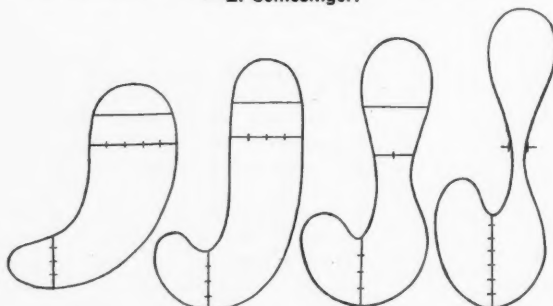


Fig. 1.  
Hypertonic.  
2 to 3 hours.

Fig. 2.  
Orthotonic.  
3 to 4 hours.

Fig. 3.  
Hypotonic.  
4 to 5 hours.

Fig. 4.  
Atonic.  
5 to 6 hours.

First to be considered is the tonicity of the stomach. This it is that renders the stomach a potential cavity, except at the cardiac part. Now, on the

ingestion of food the stomach assumes a definite shape, according to the degree of this factor, as it is this that holds the stomach wall against its contents. It has been well defined by Barclay "as the constant contraction of the stomach which maintains the contents in tubular form, i.e., it is an automatic contraction that counterbalances the action of gravity on the stomach contents."

The diagram appended will show the typical shapes assumed by the hypertonic, orthotonic, hypotonic and atonic stomachs, with the emptying times for the various degrees of tonicity, for it is obvious that the motility depends to some extent upon this phenomenon.

The examination of the manner of canalization also affords some knowledge as to the degree of tonicity.

The next heading is the shape of the stomach. I do not propose to discuss the anatomy, etc., of the normal stomach and its variations, according to the amount of its contents, but shall pass on to the irregularities in outline occurring in the diseased stomach.

The normal silhouette may be interrupted in one of two main ways; excrescences from and inroads into the bismuth shadow. Of the excrescences there is the projection due to the bismuth filling up the crater of an ulcer, producing the appearance known as the "notch" (Fig. 5). This is not present in every gastric ulcer, its presence or its absence depending on the depth of the crater, for one thing, and also upon its situation, for if, for example, the ulcer be situated high up there may be a well marked crater, yet the bismuth fail to remain in it to produce this appearance.

Of the same class is the perforating ulcer (Fig. 6),

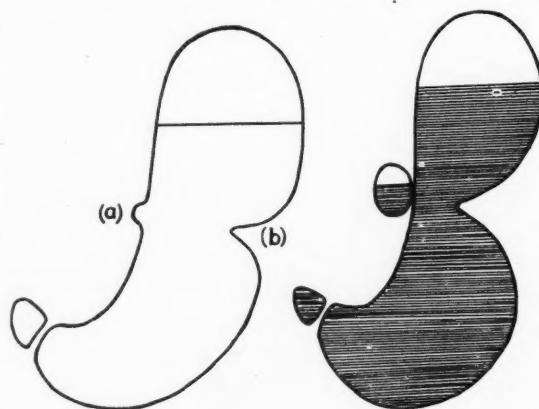


Fig. 5.  
Notch (a) and  
Incisura (b).

Fig. 6.  
Penetrating Ulcer.  
Air bubble  
over Bismuth  
Excrescence.  
—Handek.

which has a most typical appearance. This, as was first pointed out and described by Handek, is due to the projection of the bismuth into the cavity of the perforating ulcer, partially filling it from its lower level, and presenting a horizontal upper margin, capped with an inverted air bubble, so that,

alongside the stomach, mainly rendered opaque by bismuth and capped by its *Magenblase*, is a small round or circular area, similarly divided by a horizontal line, the upper part bright from the contained gas, the lower portion dark from the bismuth.

The next group of irregularities are those due to some localized diminution of the bismuth shadows, whether spasmodic, organic or mixed. Of these, the incisura (Fig. 5 and 6) will be first discussed. It is due to spasm of the circular fibres at the side of irritation, and hence causes a silhouette, more or less bilocular, according to its depth. An incisura is usually due to an ulcer, but it may occur in certain nervous diseases, and in diseases elsewhere in the alimentary tract. To warrant its name, it must be constant, stationary, and resistant to massage and anti-spasmodics.

Next in order come the actual inroads into the bismuth shadow, caused by the masses of growth, whether simple or malignant, encroaching upon the lumen of the stomach, causing the so-called "filling" defects, with, in certain cases, the characteristic "thumbing." These defects naturally vary according to the mass of the growth, its situation and its character (Fig. 7, 8, 9, 10, 11, and 12).

#### Irregularities in Outline.

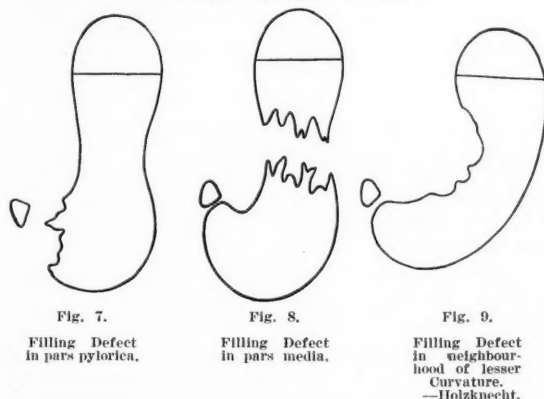


Fig. 7.  
Filling Defect  
in pars pylorica.

Fig. 8.  
Filling Defect  
in pars media.

Fig. 9.  
Filling Defect  
in neighbourhood of lesser  
Curvature.  
—Holzknecht.

In examining cases where there is an irregular depression in the silhouette, care must be taken to

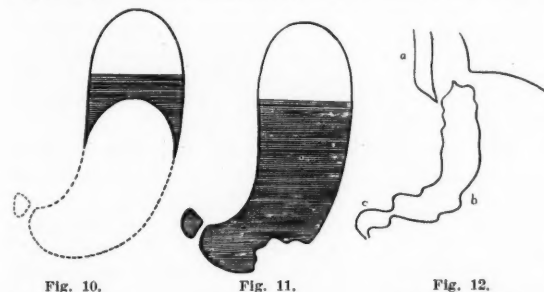


Fig. 10.  
Large Malignant of  
body of pyloric part  
and stomach (also  
in papilloma).  
N.B.—Possibility of  
Hair Ball.

Fig. 11.  
Malignant of Great-  
er Curvature (so  
also Tb. Ulcer  
and S.)

Fig. 12.  
Diffuse Infiltrating  
Carcinoma. — Holzk-  
necht and Jonas.

(See Skiagrams 1 to 11.)

separate intrinsic gastric conditions from extra-gastric masses compressing the gastric lumen. I know

of two such errors I have made within the last fifteen months, the one due to a hydatid cyst high up in the abdomen, the other to an abdominal aneurysm. The common causes of such compression defects are cysts—ovarian, pancreatic, hydatid, etc.—hypertrophies of organs and myomata of the uterus (Skiag. 12).

With the exception of the incisura and the "compression" defects, irregularities in the silhouette are usually diagnostic in themselves; for example, the abrupt defect at the pylorus, due to a moderately large cancer situated near that region (Skiag. 3). On the other hand, it is not always possible to say whether the ulceration be simple, malignant, tubercular, or syphilitic.

If unassociated with other abnormalities, contraction of the whole gastric wall, causing the so-called "snail-form," etc., should not be considered diagnostic.

The motility of the stomach is to be regarded as a most important factor, and in this respect the views of the Continental writers are to be largely followed, rather than those of the American alimentary radiographers, who do not place so much value on it.

As a general rule, the stomach empties in 4 to 4½ hours when the meal we employ is given, the time varying to some extent with the tonicities. Deviations from the normal emptying time may be grouped into two main sections, the one characterized by acceleration, the other by delay.

Rapid emptying may occur in achylia gastrica, in carcinoma of the body of the stomach, and in duodenal irritation. In this latter a most excellent term, coined by Barclay, are included, besides actual duodenal ulcer, reflex conditions from the bowel below, cholecystitis and other gall bladder conditions, and adhesions in this region.

Let me here state that far better for diagnosis than a straight-forward ray of the gall-bladder is this finding with the opaque meal, which is obtained in a great percentage of such cases, whereas the great percentage of rays for gall-stones are negative (Skiag. 14).

A curious type of rapid emptying is associated with this duodenal irritation; at first there is a very rapid evacuation of a considerable part of the meal, large masses being visible as they pass through the duodenum, the stomach usually being over-run with moderately violent peristaltic waves (Skiag. 15); sometimes the whole stomach may empty within an hour or two (Skiag. 13); sometimes, however, the emptying time for the whole meal may not be lessened, and it may even at times be increased, in spite of the early rapidity in emptying. These findings are moderately definite, and with the addition of hypertonus, have been grouped into a symptom-complex by Barclay. But it must be borne in mind that all duodenal ulcers do not present these findings (see later under "duodenal ulcer with stenosis").

The second type of variation from the normal is that of delayed emptying; this may be of different degrees, giving us the small, the medium, or the large six hours residue (see Figs. 14, 15, 16, 17, 18).

Such a delay may occur in—

(1) Functional decreased motility, e.g., ptosis; but

in this case there is a notable decrease in peristalsis, the contents hanging, as it were, in a toneless sac.

(2) Pylorospasm and pylorospasm due to drugs, as nicotine.

(3) Stenosed duodenal ulcer, where there is an enlargement of the duodenum proximal to the stenosis, causing a shadow at times almost continuous with the gastric shadow and accompanied usually by a well-marked increase in peristalsis, usually becoming more and more violent till it reaches its maximum some hours after the ingestion of the meal.

(4) Conditions outside the stomach and duodenum, causing obstruction to the passage of the contents, as, for example, disease of the pancreas. Twice recently have I diagnosed cases presenting a normal stomach silhouette, associated with marked delay, as stenosis, probably due to ulcer, at the pylorus; operation, however, showed the delay to be due to pancreatic disease, one of which, by the way, cleared up remarkably under "606."

It is also said to occur in hyperacidity without ulcer (de Quervain), but no such case has been seen by me, either privately or at the hospitals, and my opinion is that such hyperacidity, associated with decreased motility, producing a six-hour residue, points to ulceration.

Apart from these conditions above, a six-hours residue points to organic disease in the stomach or duodenum, and typical residues are shown below, with short explanatory notes (Fig. 14, 15, 16, 17, and 18).

**Bismuth Residues, after Six Hours, Showing its Position with regard to the Navel (Fig. 14, 15, 16, 17).—Handek.**

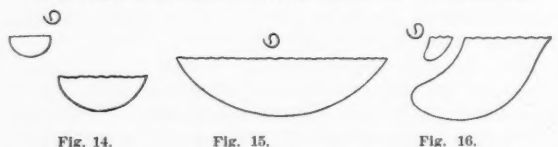


Fig. 14.  
Small Residue Spasm or Slight Stenosis of Pylorus.

Fig. 15.  
Large Residue extending to the right of the umbilicus — uncompensated Pyloric Stenosis.

Fig. 16.  
Medium Residue, to left of navel, snail form; end of greater curvature well deflected and rising sharply; pylorus drawn to left by shrinkage of greater curvature; ulcer of the pylorus.

Numerous references have been made already to the peristaltic movements of the stomach; these undoubtedly vary with the tone, being almost absent in a typical case of atony. On the other hand, peristalsis may be greatly increased, notably in pyloric disease, and in duodenal irritation; for example, I recently saw a case of tubercular disease of the caecum, where three different deep peristaltic waves could be seen in the stomach at the same time, each almost wholly constricting the stomach, so that it presented the appearance of being composed of four almost separate parts, the waves passing down with extreme rapidity. Increase in peristalsis occurs also in certain nervous diseases. Though it is an aid to diagnosis, yet, in itself, it is insufficient to lead to any positive conclusion.

Anti-peristalsis has been written about a good deal. Hitherto, it has not been my fortune to examine a patient presenting this strange phenomenon.

The position of the stomach is of some diagnostic value; it is obvious that it will vary with the tone; but of much greater importance is the position of the pylorus, whether displaced to the right, to the left, or fixed (see mobility). (See Skiag. 17 and 12.)

Mobility is a term that at once explains itself, and is determined by palpation, combined with fluoroscopy. Its determination is not always necessary, and should, when possible, be omitted, on account of the not inconsiderable risk to the examiner.

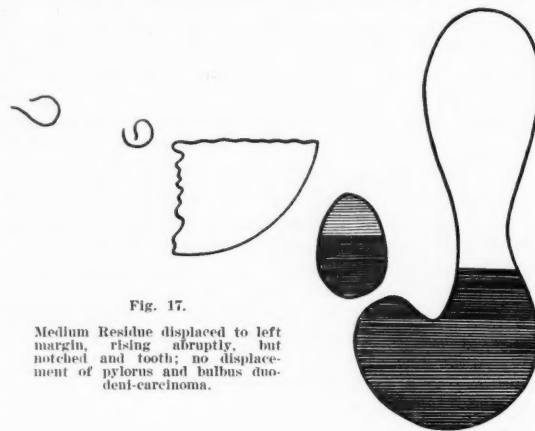


Fig. 17.

Medium Residue displaced to left margin, rising abruptly, but notched and toothed; no displacement of pylorus and bulbous duodenal carcinoma.

Fig. 18.

Duodenal Ulcer, with Stenosis.

Now that the essentials on which the diagnosis is based have been noted, and the value of each discussed, it will be found convenient to pass on to the consideration of definite lesions and their accompanying departures from the normal, as revealed by the opaque meal.

Gastric ulcers are surgically divided into three groups; the simple erosion, the ulcer with a crater-like base, and the perforating ulcer.

Radiographically, in the simple erosion, no notch occurs, as there is no deep pocket to contain the bismuth as a projection; on the other hand, such an ulcer is often accompanied by an incisura. In itself, such is insufficient for diagnosis, as an incisura may occur in other conditions; and, again, not all erosions are accompanied by this phenomenon. Again, though an incisura be readily detected in the mesogastric region, its detection in the pyloric part is usually impossible, doubtless because it does not always occur in this region.

What else then is there to aid us in the diagnosis of such a lesion. Usually, such a case presents decrease in motility, in spite of normal or increased peristalsis, there usually being a small six-hours residue. Again, in such a case, where the pre-pyloric part is affected, marked hypersecretion may occur, and be of some value in diagnosis.

The presence of this phenomenon of hypersecretion is not constant enough to be of great value, occurring as it does in only a small percentage of such cases; but if present, it is of considerable importance, and to emphasize this, the following words of Barclay



may be quoted: "In the few cases that have been submitted to operation, an ulcer near the pylorus has been found" (Skiag. 20).

These cases also show, in a series of test meals, a marked hyperacidity, and, without doubt, apart from clinical findings, the diagnosis depends on the decreased motility, with a small six-hours residue, combined with a constant hyperacidity; the occurrence of an incisura, or of marked hypersecretion almost cliniching, as it were, the diagnosis.

The typical feature of the second type of gastric ulcer—the penetrating ulcer—is the "notch," due to the crater of the ulcer being occupied by the opaque substance. This notch is usually accompanied by an incisura (Fig. 5). In the typical case, the notch projects from the lesser curvature, with the incisura indenting the greater curvature directly opposite. The notch and its accompanying incisura are sufficient for diagnosis; but for verification a six-hours residue—usually of small size—and an increase in acidity, are of great value.

The picture just drawn is that of a typical penetrating ulcer in the mid gastric region; but when the site of the ulcer is the immediate pre-pyloric region, the diagnosis is not so certain; indeed, confusion between ulceration of the immediate pre-pyloric region and of the duodenum is very common, and one of the most frequent errors.

The final type of gastric ulcer is the perforating ulcer (Fig. 6), the typical features of which, so well described by Handek, have already been briefly mentioned. If this appearance be present, the diagnosis is absolute, although here again there are a few pitfalls for the unwary. On the other hand, a perforating ulcer cannot be excluded under all conditions, if the usual appearance, as described, be absent; because, if it be situated high up towards the cardio-oesophageal orifice, the accessory cavity may not partially fill up. By making the patient assume first the horizontal and then the vertical position, the risk of overlooking such a cavity may, to a greater extent, be eliminated. In certain cases, the persistence of the bismuth in this excavation, when the stomach itself has evacuated its contents, may confirm a previously doubtful silhouette.

In some of these conditions already described, mention has been made of the occurrence of a bilocular gastric shadow, *e.g.*, if an incisura be present. Now, to a radiographer, any bilocular gastric shadow is an hour-glass stomach, whether the constriction be of spasmodic, organic, or of mixed origin, thus differing from the surgical interpretation of the term.

If now, a gastric ulcer be accompanied by stenosis, the findings will vary with the position. If of mesogastric situation, the typical hour-glass stomach of surgery is produced, the appearance varying with the degree and extent of the stenosis (Skiag. 5). Brief mention will be made later of the appearance of the hour-glass stomach of malignant origin.

If the ulcer, so stenosed, be situated in the pyloric region, delay is the most marked abnormality. Delay may occur, as before mentioned, in other con-

ditions; but in this condition it is accompanied by persistent hyperacidity in repeated test meals.

The degree of residue in such a case is of considerable value; the presence of almost the entire meal in the stomach at the expiration of six hours, is almost absolute proof of organic disease, with the exception of the extreme atonic and water-trap stomach.

If this large residue assume the so-called "sickle"—better "saucer"—shape, the appearance is pathognomonic of stenosis (Fig. 15 and Skiag. 17).

In summing up the findings in pyloric ulcer, let me cite de Quervain: "We can say that an apparent six-hour residue, with preserved or increased peristalsis, gives an essential indication, though no real proof, for the existence of a pyloric ulcer"; and modify it to this extent, that the presence of persistent hyperacidity in a series of test meals in such a case would justify the diagnosis of ulcer.

The ease with which we can separate malignant growths of the stomach from simple ulceration again depends on the situation of the lesion.

If in the mesogastric region, the typical appearance is that of an irregular inroad into the silhouette of the opaque meal, at once differing from the appearance of a penetrating ulcer with its notch. Often the growth produces a curious "thumbing" effect, at once diagnostic of the condition (Skiag. 3 and 11).

If the lesion is in the upper cardiac part, it is not so easy to detect, while if it be at the pylorus it may be impossible in some cases to separate the simple ulcer with its stenosis from the malignant (Skiag. 7).

The diagnosis of malignant hour-glass stomach from that caused by a simple stenosed ulcer has been fully dealt with by Hertz and others, and will not be further mentioned.

Duodenal ulcer is the next point to come under consideration, and here trouble at once crops up, owing to there being two main methods advocated for the diagnosis of lesions in this situation.

The direct method, by serial radiography, as advanced by Cole and others, and extensively employed in America, attempts to show the actual lesion in the duodenum in a series of radiographs; the diagnosis depending upon the detection of defects and irregularities produced by the ulcer. This method sounds easier than it is, and the diagnosis of the vagaries depicted is a matter of extreme difficulty. As in this country the expense entailed by such a procedure bars it from extensive employment, further particulars will not be given.

The indirect method, that adopted by European radiographers, has been followed in this country, dependence being placed on the screen, supplemented by radiographs, usually in the horizontal and horizontal right lateral positions. In screening this area, the Bucky screen compressor diaphragm, and the process of Chilaidditi, are of the utmost importance.

The main findings of duodenal ulcer depend on the presence or absence of stenosis. If there be no stenosis or marked persistent spasm, there occurs the symptom complex of Barclay, as already described. Some other conditions present the same

findings, and have all been grouped under the heading of "duodenal irritation" by the same author (Skiag. 15 and 13).

In some cases, distorsion of the duodenal cap, when well marked and constant, may warrant the diagnosis.

When stenosis has occurred, a different picture unfolds itself; there is delay in the evacuation of the gastric contents, with broadening of the duodenum above the stenosed area (Fig. 18 and Skiag. 21 and 22); but this has been discussed in more detail previously. Later on in the examination, the duodenal shadow may persist some time after the stomach itself is empty. Such a persistence occurs in duodenal ulcer, diverticula of the duodenum, and adhesions, and is to be distinguished from bismuth remaining in the region of Vater's papilla.

Once again let me say that the diagnosis of duodenal ulcer by the indirect method does not depend on the appearance of a "notch," for such too easily escapes detection.

In a small percentage of cases of duodenal trouble, the opaque meal has shown practically no departure from normal, there being neither the Barclay symptom complex, nor the dilatation and delay of stenosis, yet operation has revealed an ulcer. This I regard as the commonest of all errors in diagnosis by this procedure.

In closing these notes, let me reiterate firstly that it often happens that a bismuth examination would save an operation, proving it unnecessary, as for example in Skiag. 24, where a laparotomy was done for trouble that the opaque meal five weeks later proved to be at the cardio-oesophageal orifice, or again showing operation unjustifiable (Skiag. 9); secondly, that the bismuth meal is as yet far from absolute in diagnosis; that lesions of the mesogastric region far less readily escape detection than those at the inlet and outlet of the stomach; and that it is round the outlet that the majority of our errors occur.

### Reports of Cases.

#### A CASE OF ENDEMIC TROPICAL DYSENTERY.

By Eric Jeffrey, M.A., M.B., Ch.M. (Syd.),  
Resident Medical Officer, Sydney Hospital.

W.C., carriage-builder, aged 32, married, living at Bathurst, New South Wales. The patient came into Sydney Hospital, complaining of severe diarrhoea of three months' duration. He had had a previous attack of a similar nature in April of last year, when he was ill for five months, part of which time he was in St. Vincent's Hospital. He told me that his brother had recently had a similar illness, which had not yielded to medical treatment, and also that several of his friends in Bathurst were similarly affected. The patient had only left New South Wales on one occasion, and that was to see the Melbourne Cup at Flemington, Victoria. He had never been in the tropics.

The diarrhoea at its onset three months ago was not constant. Latterly it had become more frequent. The patient was passing eight or nine motions a day at the time of admission. There was a considerable amount of tenesmus, but little actual pain. The motions contained a large amount of mucus and a few streaks of blood. He had not lost much weight. Taking food and walking about caused a desire to defæcate.

On examination, the liver was found to be enlarged, the upper border being at the seventh rib and the lower about

two inches below the costal margin. It was this observation that caused me to have his stools examined for *Amoebæ histolyticae*, as I had already in Dr. Jamieson's beds two cases of dysentery (tropical), one with marked hepatitis; both cases from the tropics.

The pathologists reported on April 22, 1915, "many amoebæ present; most resemble *E. histolytica*, with ingested erythrocytes, but a few are of larger size, with marked ectoplasmic layer, resembling rather *E. coli*."

On admission, the case was regarded as ordinary catarrhal colitis. The diet was regulated, and the patient put on a mixture containing bismuth, salol, beta naphthol and opium. As soon as the report of the presence of amoebæ was received, he was ordered emetin gr.  $\frac{1}{2}$  by hypodermic injection, three times a day (this he never got, owing to the oversight of a nurse) and irrigations of quinine (1 in 2,000). Next day, after one irrigation, the mucus was much less, the stools less frequent, and, on examination, the number of amoebæ greatly diminished. Although the patient got no specific treatment with emetin, he improved rapidly. No amoebæ were found after the second day, and in about a week the stools were quite formed, and the patient constipated, so that it was necessary to give paroline and to suspend his mixture. He was kept in hospital for a couple of weeks after this, but showed no further signs of dysentery, and no more amoebæ. He was therefore allowed to go home, apparently cured.

The interest of the case lies in its occurrence in a native of New South Wales, who has never left Australia or even visited Queensland, and in the fact that there is evidently a form of infection in Bathurst or in the surrounding districts, as other people apparently suffer from the same affection.

Dr. Isbister some years ago reported a similar case from Wollongong, and was able to demonstrate the amoebæ in the water of an infected well in the district. More recently Dr. Corlette has published a case of amoebic abscess also in a native of N.S.W. who had never visited the tropics. Perhaps the Public Health Authorities might consider the advisability of investigating the water supply of Bathurst; my own duties prevent me from doing so.

Another point of interest is in the occurrence of the case so soon after Dr. Jamieson's case of malaria in a man who had never left New South Wales.

I am indebted to Dr. Sydney Jamieson for the permission to publish this case.

#### A CASE OF CEREBRAL TUMOUR.

By G. Brettingham-Moore, M.B., Ch.M.,  
Temporary Assistant Honorary Physician, Hobart General Hospital,  
and T. H. Goddard, M.B.,  
Senior House Surgeon, Hobart General Hospital.

The patient (55 years of age) was admitted to Hobart General Hospital on February 3, 1915. He was quite sensible when admitted, but very drowsy. The previous history was that he had suddenly become unconscious in the street. He complained of headache, not particularly localized, and dimness of vision. On examination, there was nothing of note to be detected in the nervous system. The reflexes were normal; sensation was normal, and no loss of power in limbs could be detected. Blood pressure was considerably increased. The urine contained no sugar or albumin. The condition on admission strongly indicated oncoming mental trouble. He was placed on potassium iodide gr. x. three times a day. For a few days after admission he was more depressed and drowsy, and lay in a semi-comatose condition. Pain was localized to top of head, and was very severe. Aspirin gr. x. relieved it for a time. He then appeared to become brighter, but still evinced no desire or power to get out of bed. The headache continued, still being localized to top of head. From this time onward he seemed to improve mentally, and was able to get out of bed. The headache was still present, but not so severe. After a few days of apparent improvement, he seemed to become mentally dull again, and manifested marked loss of memory. An examination of ocular discs revealed

no optic neuritis. The stupor and giddiness increased, and he took to bed again. He began to pass urine in bed. He then got attacks of vomiting.

At no time was there any evidence of loss of sensation or power. On the day before his death his condition appeared to be fairly good, although he was dull and suffered still from loss of memory. He became worse suddenly, unconsciousness coming on rapidly. The only sign of note detected even then was dilatation of the right pupil three hours before his death.

At the post mortem examination a tumour about the size of a walnut was found above the *corpus quadrigeminum*, on the right side, into which hæmorrhage had occurred. The patient had denied having had syphilis.

To the naked eye, the tumour, which was of the size of a large walnut, appeared to be fairly well defined from the surrounding brain substance, being of a darker hue; greyish brown might aptly describe the colour.

There were a few small hæmorrhages and one larger one of more recent origin, which had torn up the surrounding tissue for some distance.

Under the microscope, it was seen that the tumour merged slowly into the brain substance, but that there was no extensive infiltration. The blood vessels were formed, but ill-supported. The most prominent structures to be made out were bundles of long spindle cells, arranged in interlacing bundles. On section, the cells appeared either as small circles, when seen in transverse diameters, or as elongated bodies, when lying horizontally, or again as shorter bodies, when cut obliquely. Between the bundles were branched cells, the nuclei of which, in the deeper portions of the tumour, did not stain as clearly as in the outer regions. In the latter situation their number was increased. There were occasional small deposits of pigment, remnants of old hæmorrhages.

I considered the tumour to be a spindle-celled sarcoma, which is unusual; a small round-celled sarcoma or glioma is more frequently met with.

## Reviews.

### OBSTETRICS.

This little book<sup>3</sup> purports to give a concise account of modern obstetrics. The author has well attained his object.

We take exception to some of its teaching. We do not subscribe to the statement that in parietal presentations spontaneous delivery is impossible. In these presentations, which are characteristic of flat pelvis, it is usually held that 60% of these cases can be delivered spontaneously with the help of Walcher's position and, if necessary, axis-traction forceps. In the more marked degrees of pelvic contraction, we entirely agree with the author. More stress should be laid on the value of axis-traction forceps in all cases in which forceps are needed. We do not see how efficient axis-traction can be made by tapes applied to Simpson's ordinary forceps. The treatment of transverse presentations by abdominal section, as advocated, is not likely to find many supporters. We fail to find any allusion to pre-maternity examination of the pelvis and to bi-manual compression of the uterus as a method of treatment of post-partum hæmorrhage. There is, however, much real merit in the work. Treatment is given concisely and practically, and many reliable hints will be gleaned from its perusal. It is a book more suitable for the actual practitioner than the student. The outline diagrams are an excellent feature.

### EYE, EAR, NOSE AND THROAT.

In the "Eye, Ear, Nose and Throat" volume<sup>4</sup> of the Practical Medicine Series, Drs. C. A. Wood, A. H. Andrews and W. L. Ballenger have summarized the articles on these branches of medicine which have appeared in American journals, as well as in some of the British and Austrian journals.

The eye section is both informative and instructive. In some instances matter is dealt with in abstract, which would

otherwise pass unnoticed. As a result of Elliot's visit to America, glaucoma and its treatment has attracted much attention and provoked considerable discussion. Among the many subjects reviewed, the conservation of vision is dealt with, and a list of pamphlets, prepared by various committees, on this subject is published.

In the ear and nose section will be found a review of an article by Hammon on the early recognition of mastoid complications of middle ear disease. In this article, the author advocated early and frequent operation. The section will serve as a useful guide to those who have recourse to the originals and are disposed to read them. It also contains several valuable abstracts, notably of articles by Chevalier Jackson on bronchoscopy, and by Iglauer on suspension laryngoscopy. The abstracts are sufficiently complete to be of practical utility.

### BLOOD-SUCKING FLIES.

In view of our increasing knowledge of the rôle of flies in the transmission of disease, we welcome the publication of "Flies and Disease: Blood-sucking Flies," by Edward Hindle, the companion volume to Graham Smith's "Non-blood-sucking Flies," published in the Cambridge Public Health Series.

The author's main object has been to collocate the more important observations concerning the part taken by flies in the transmission of disease. He has sought to combine knowledge of the insects with information concerning the infections transmitted. The book is therefore written both for the entomologist working in this field and for the medical officer or administrator. Clinical symptomatology is, however, not dealt with. While sufficient details of morphology, structure and classification are given, the book is not overburdened with technical descriptions, but is essentially devoted to the bionomics of the flies, and their relationship to the diseases transmitted. In the arrangement of the work, the account of the fly is immediately followed by a description of the parasite transmitted and of the disease produced.

As might be expected, the greater portion of the work is devoted to mosquitoes and mosquito-borne diseases: anophelines and malaria, Stegomyia and yellow fever, culicines and dengue and filariasis, and to the tsetse flies (*Glossina*) and trypanosomiasis. In each of these subjects the author had succeeded in condensing a vast amount of information into a relatively small compass. It is somewhat surprising, however, to find that the Tabanidæ, which comprise more blood-sucking species than any other group, with the exception of the mosquitoes, are so little concerned in the transmission of disease.

The work can be thoroughly recommended to those interested in the subject, as giving a very satisfactory account of the rôle played by blood-sucking flies in the transmission of disease.

## Medico-Legal.

### THE VITADATIO CASE.

Messrs. Elliott Brothers defended, on May 27 and 28, 1915, a case instituted by the Department of Public Health of New South Wales, under the provisions of the Pure Food Act, in regard to a patent medicine known as *Vitadatio*. It was claimed that the information set out in a pamphlet descriptive of this concoction was false.

Mr. Robison, appearing for the Crown Law Department, stated that the prosecution relied on a statement printed in the pamphlet as follows: "*Vitadatio* is a great herbal remedy for Bright's disease; it has cured Bright's disease, hydatids, stricture, cancer, consumption and ringworm, and it will cure the most severe cases of hydatids, tumorous growths, lung trouble, and heart trouble."

An analyst's certificate was put in in evidence. The analysis had been carried out by Dr. Cooksey, the Government analyst. The constituents of the concoction, according to the certificate, were as follows: Alcohol, 1.1% by weight (= 2.5% proof spirit); salicylic acid, 0.5 gr. to the

<sup>3</sup> Manual of Obstetrics, by Edward P. Davis, A.M., M.D., 1914. Philadelphia and London: W. B. Saunders Company; Melbourne: Little & Co.; Crown 8vo., pp. 403, 171 illustrations. Price, 10s.

<sup>4</sup> The Ear, Nose, and Throat, by Casey A. Wood, C.M., M.D., D.C.L., Albert H. Andrews, M.D., and William L. Ballenger, M.D.; Practical Medicine Series, 1914. Chicago: The Year Book Publishers; Demy 8vo., pp. 366; illustrated.

<sup>5</sup> Flies in Relation to Disease—Blood-sucking Flies, by Edward Hindle, B.A., Ph.D.; Cambridge Public Health Series, 1914. Cambridge University Press; Demy 8vo., pp. 398, and 88 figures. Price, 12s. 6d.



pint; tannin and vegetable extractives, including gentian, sarsaparilla, and a trace of senna or rhubarb.

Dr. J. Burton Cleland, principal Government microbiologist, said that, in his opinion, *Vitadatio* was certainly not a cure for cancer. No drug known, when taken internally, could effect a cure of this disease. It was not a cure for hydatids or ringworm, and the alcohol contained might be harmful in Bright's disease. It could not cure consumption or organic stricture. Under cross-examination, Dr. Cleland admitted that alkaloids possessed great medicinal value, and that it was possible that some alkaloids had not yet been discovered. He instanced quinine as a drug which cured definitely.

Dr. Wilfred Palmer, the Medical Superintendent of the Waterfall Sanatorium, said that *Vitadatio* could not cure consumption. No known drug, given internally, could effect a cure.

Dr. Arthur A. Palmer, Government Medical Officer, denied that a preparation compounded in accordance with the formula of the Government analyst could cure Bright's disease. No known drug could do so. It could not cure hydatids, cancer or consumption. In answer to the counsel for the defendant, Dr. Palmer spoke of the effect of salvarsan in syphilis, and denied that it was a definite cure. He was induced to make the statement, that with the exception of one or two specifics, no drugs really cured disease. He was closely questioned in connexion with the possible discovery of a valuable alkaloid, but refused to be drawn.

Mr. Windeyer, for the defence, argued that no case had been made out. Dr. Palmer had said that no drug could cure, and if that were so, the doctors were doing exactly the same as the persons compounding and selling this mixture. He maintained that no higher claim was made for this mixture than that it was something that would assist in the recovery of health.

Mr. Molesworth, described as a public analyst, gave evidence to the effect that the analysis made by Dr. Cooksey did not agree with the analysis made by himself of a sample supplied to him by Messrs. Elliott Brothers. He doubted whether an analyst could detect a mixture of gentian, senna, rhubarb, and sarsaparilla. He had not obtained the physiological properties belonging to rhubarb or senna. He thought that it was possible that there were unknown ingredients in the mixture. He was of opinion that the mixture contained an infusion of taraxacum (dandelion), liquorice, a small quantity of juniper, or some similar bodies. There might have been some gentian in it. He found about 1% of alcohol, only a trace of salicylic acid. There was no tannin, no sarsaparilla, no senna and no rhubarb.

Mr. Cooksey, recalled by the Crown Law Department, stated that the methods adopted by Mr. Molesworth in his analysis were not the methods recognized for the purpose. He had not obtained any indications of an unknown drug. Assuming that the mixture contained some, the quantity would be so small that it would be quite inefficient for medicinal purposes. There was only a minute trace of alkaloid; not more than could be obtained from a decoction of liquorice.

The proprietor of the patent medicine, a butcher and manufacturer of artificial manure, Sydney Arthur Palmer, of Flinders Lane, Melbourne, was called next. He stated that he had purchased *Vitadatio* from one W. Webber, of Tasmania. As far as he knew, the claims that the mixture had cured the diseases named in the pamphlet were true. He maintained that the analysis put forward by the Government analyst was incorrect. It contained some spirit and salicylic acid, but no tannin, sarsaparilla, rhubarb or senna. If tannin was present, it would be contained in the other herbs. In addition to the preservatives, alcohol and salicylic acid, there were only two ingredients. One was a herb known to witness, and the other he had purchased in Tasmania. The witness agreed to write the name of the herbs on a piece of paper, for the information of the magistrate, but he objected strongly to the publication of the names. He claimed that he had been cured of hydatids by taking one bottle of *Vitadatio*. He had been told by a New Zealand doctor that he would die within three months. He said that a person in North Sydney had been cured of cancer by the mixture, but on cross-examina-

tion it appeared that the diagnosis rested on the person's own statement.

The ingredients cost him 3d. per bottle, and he estimated that the cost of compounding, etc., brought the amount up to 10d. The cost of advertising was heavy. He sold the mixture at 4s. per bottle, in lots of 100 dozen. He had sold about £6,000 worth of the concoction last year.

William Godfred said that he manufactured *Vitadatio* for the proprietor. He knew nothing about drugs. Hops had been used previously, but these were not used now. The quantity of gin included had been lessened. The maximum amount used was 10%. The proportion of the Tasmanian herb was 16 ounces to the gallon.

The magistrate held that the Crown Law Department had established a case against the defendants, and therefore imposed a fine of £10, with 6s. costs.

## University Intelligence.

### UNIVERSITY EXTENSION WORK AT HOBART.

The work of the University Extension Board of Tasmania is being hampered by want of funds. It appears that the Workers' Education Association has extended its sphere of activity to Tasmania within recent times, and that tutorial classes have been instituted in connexion with this Association. An arrangement has been arrived at with Mr. H. Heaton, whereby he agreed to act as University lecturer half of his time and as tutor to the Workers' Educational Association classes for the other half. The salary attaching to this position was £400.

The Workers' Educational Association waited on the Chief Secretary on May 27, 1915, for the purpose of seeking the financial assistance of the Government. Dr. Sprent, the Chairman of the Association in Tasmania, and also Chairman of the University Extension Board, pointed out that a grant of £500 per annum had been arranged by the Solomon Government toward the expenses of this form of University extension. Since then the engagement of Mr. Heaton, mentioned above, was effected, and of the sum allowed, only £100 remained to defray the expenses incidental to the lectures. The effect was that, while it had been the desire of those managing affairs to give preference to the Workers' Extension Association, very little could be done with the small sum at their disposal. Dr. Sprent pointed out that it appeared to him that the fees paid to Mr. Heaton should not be defrayed out of the grant, which was properly ear-marked for extension work. This would mean a saving of £175 per annum. He hoped that it would be possible to concentrate the work in favour of non-matriculated students. Other speakers, including the lecturer, Mr. H. Heaton, spoke of the intention of the association to give lectures at various outlying, but important centres. These plans could not be carried into effect, unless more money became available.

The Chief Secretary promised to place the matter before his colleagues, and intimated that matters affecting the extension of education would always find a sympathetic ear with the Ministry. In spite of the present financial stringency, he was hopeful that the sum asked for might be found. He also expressed himself in favour of granting the use of a special room to the association. This question of the extension of University teaching to non-matriculated students is a very important one for the future of Australia, and one for which some sacrifices should be made. Tasmania will be well advised if an ample allowance, and even a liberal one, were granted at this early stage, for it is far easier to keep a thing going well, when a good start has been made, than to speed up after a slackness has been allowed to develop. The Government might well bear the burden of Mr. Heaton's salary, and give the Workers' Educational Association an unencumbered grant of £400 or £500 to organize and extend its sphere of utility.

A Commission has been appointed to enquire into the condition of the milk supply of the Metropolis of Adelaide. The Commissioners are Alderman A. F. Pearson (chairman), Alderman J. D. Brown, Councillor H. Sheriff, Councillor W. Pullin and Mr. G. W. Stacey. The first session was held on May 12, 1915, when evidence was taken in regard to the demand of milk, the extent of the supply and the price.



## The Medical Journal of Australia.

SATURDAY, JUNE 5, 1915.

### Pharmacists and Nostrums.

The Department of Public Health of New South Wales has again taken action to check the sale of dangerous nostrums. This time the defendants were the well-known firm of Messrs. Elliott Brothers, Limited, pharmaceutical chemists, of Sydney. While the prosecution was obviously not directed toward this firm, a fine was imposed, because the defendants had sold a substance known as *Vitadatio* to the public, and it was claimed for this preparation that it was able to cure Bright's disease, tuberculosis, cancer, stricture, ringworm, hydatids and other ailments. In view of the fact that further cases, dealing with the sale of this same concoction, will come before the Court within a short time, a discussion of the class of case may be well deferred. Suffice it for the present to emphasize the impudence of the claim that any one medicine could cure such divergent diseases as hydatids, cancer, tuberculosis and stricture. The public has to be taught that there is not a shadow of evidence in favour of a cure having been effected by any patent remedy for any of these diseases, and that no conceivable remedy could act favourably in all of them.

The medical profession is wont to complain of the iniquity of the patent medicine proprietor, and of the extraordinary gullibility of the public. Much has been written and spoken about the absurdity of buying vaunted cures and taking them, and about the credulity of persons allowing themselves to be treated by untrained and unqualified practitioners for diseases which the latter are obviously incapable of diagnosing. A moment's thought, however, will reveal the fact that the whole blame must not be distributed between the wily patent medicine man and the stupid public. The medical profession itself is often a contributing party to this highly reprehensible state of affairs, and pharmacists, who should work loyally with the doctors, often sin in this connexion.

A few years ago, the *Lancet* was forced to swallow a bitter pill in a libel suit brought against it by

the proprietor of an asthma cure. The case went against the *Lancet*, solely because a number of reputable physicians, when placed in the witness-box, admitted that the results obtained in some cases after the remedy in question had been applied were as good, if not better, as those obtained by the recognized forms of treatment. In other words, the manufacturer of this particular preparation had taken a leaf out of the book of some successful practitioner, and, by concocting a remedy, which was quite useful in some cases, induced the army of asthma sufferers to employ the remedy, without intelligence, selection or modification. The real danger in a case of this kind lies in the fact that the diagnosis is left to unskilled persons, and that valuable time is wasted in those cases in which the treatment proves unsuitable. The public is a bad judge in matters connected with illness, and, for this reason, medical practitioners are not justified under any circumstances in employing a proprietary remedy, no matter how satisfactory the results obtained at times may be. It is quite easy to employ the same remedies, if this should be desired, without using the patented or secret preparation, since the analyses made by the Government analysts or by good chemists are quite reliable. If medical men were more insistent on the fact that a special danger lies in the uncontrolled exhibition of a proprietary remedy, the public would perhaps be less inclined to believe the lying claims of many of these manufacturers.

It is a matter of great regret that we find that respected firms of pharmacists should prostitute themselves by selling quack remedies and patented or secret preparations for the commission the unscrupulous manufacturer is pleased to offer. Pharmacists will never gain the co-operation, sympathy and confidence of the medical profession until they join them in fighting the quack. The pharmacist should recognize that there is more to be gained by raising the standard of his trade to that of a profession, than by debasing it. It would be feasible to effect a sort of understanding between pharmacists and doctors, which would work to the mutual advantage of both. The medical profession would willingly give over dispensing in all cases within reasonable reach of a pharmacist, if the latter would give up prescribing over the counter and selling

secret, patented or proprietary remedies, save on the prescription of a medical practitioner. We can be certain that a compact of this kind would find favour with Departments of Public Health, and that steps would be taken to render the sale of these proscribed preparations difficult through other agencies. The herbalist, the druggist, and the store-keeper would be forced into a corner, if the wares sold could not be obtained at a reputable pharmacy. The time is ripe for some move in New South Wales, when the Department of Public Health is prosecuting proprietors and vendors of nostrums for which incorrect claims are being made. Unfortunately, we have to realize that some of these cases act as a splendid advertisement for the preparation. Cases have been known in which the manufacturer himself has laid the information for the purpose of obtaining this puff. This plan, however, will fail if sufficient publicity be given to the methods of manufacturers and proprietors of some of the world's most dangerous nostrums.

#### MUCH ADO ABOUT—VERY LITTLE.

For some time past, the suitability of Broadmeadows as a large training camp has been questioned, and the authorities have given this matter the most serious consideration. We have already pointed out that the hospital was unsatisfactory, and there is but little doubt that the whole camp has not proved itself to be suitable. It is unhealthy, and the accommodation is not at all ideal. But the defects are not so grave as to justify the violent attacks which have been levied against the Government on this account. The authorities have arranged for a large portion of the camp to be transferred to a site at Seymour. This new site has found favour in the eyes of the Director-General of Medical Forces, and, under these circumstances, the public may rest assured that there will be no cause for complaint in the future.

Within the House and without it, alarmist reports have been launched against the authorities. It has been stated that the men are dying like flies. Perhaps those who made these accusations have been annoyed during the past summer at the vitality of the flies in many of the country districts. It was said that 20 deaths had taken place in 10 days, and

a great stir was made on account of the fate of two men, when were discovered dead while on sentry duty. Members made numerous suggestions in regard to the choice of an alternative site, and, for a time, party capital was made out of a handful of rumours.

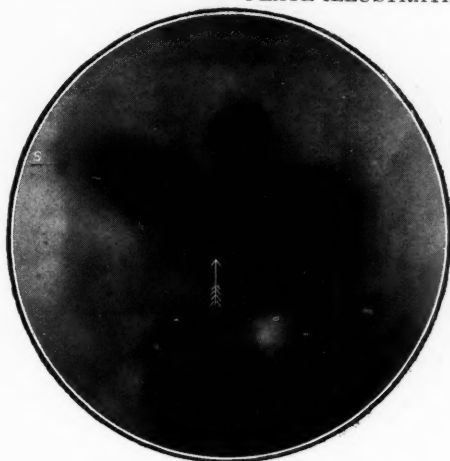
The Assistant Minister for Defence has now made an announcement, and the facts set out have been confirmed from other sources. It appears that there has been comparatively little sickness at the camp. Since August 25, 1914, the average number of men in camp has been 8214. During the whole seven months, there have been 1180 cases of sickness, and in the vast majority of instances the complaints have been of a minor nature. Eleven men died at the camp, and 29 died in hospital. On May 28 there were five patients at the camp hospital and 74 at the base hospital. During the period of ten days, there had been but one death, and not 20, as reported. It thus appears that the whole basis for complaint on which these grossly exaggerated reports were founded, was the fact that Broadmeadows is not a healthy place for a large training camp. Politicians do not hesitate to magnify defects when they can be traced to their political opponents, but at the present juncture, when the objective is the security of the Empire in general and of the individual citizens of the Commonwealth in particular, it would be better and sounder policy, if bitterness were avoided and if every member of the legislature and of the community were to make the task of providing an efficient and healthy army as little difficult as possible.

#### TROPICAL ANÆMIA.

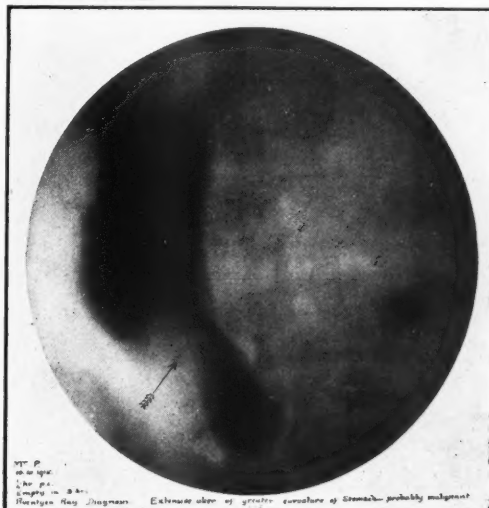
The visitor to tropical countries has rarely failed to observe the pallor of the Europeans who live in these countries. Medical writers have commented on tropical anæmia and suggested that residence in hot, wet climates occasions a poverty of colouring matter in the blood. The staff of the Australian Institute of Tropical Medicine has been investigating the physiological characters of children of European descent living in Townsville, North Queensland. Drs. Breinl and Priestley\* describe their critical examination of the blood of 305 boys and 269 girls, chosen at random among school pupils from 7 to 15 years old. They have enumerated the red and white corpuscles in a cubic millimetre of blood, and estimated the percentage of hæmoglobin.

\* *Annals of Tropical Medicine and Parasitology*, VIII., December, 1914, pp. 565-574 and 591-608.

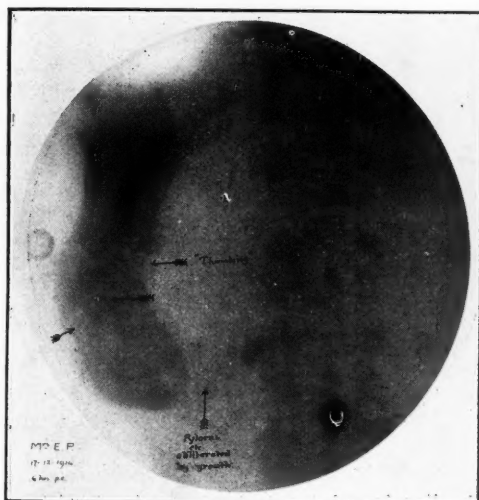
PLATE ILLUSTRATING DR. SEAR'S ARTICLE.



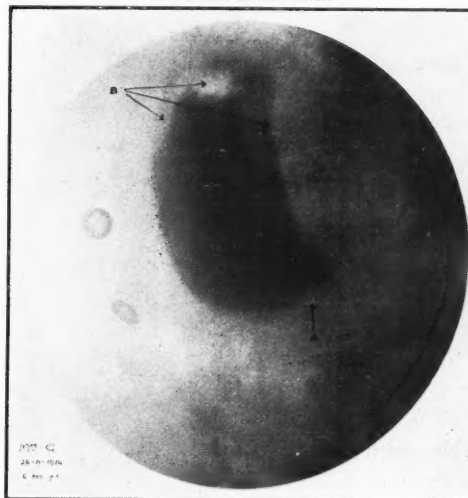
Skilag. 1.—Röntgen Ray Diagnosis—Old Ulcer, with contraction across. Operative findings—As above.



Skilag. 2.—Extensive Ulcer of Greater Curvature, probably malignant. Death four months later.



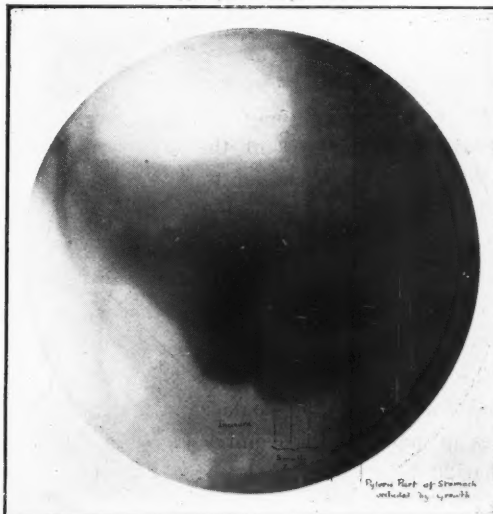
Skilag. 3.—Carcinoma of Pyloric Part of Stomach, extending far up stomach walls, and showing "thumbing." Inoperable.



Skilag. 4.—Double Lesion—(A) malignant of pyloric part; (B) malignant of upper part. Inoperable.



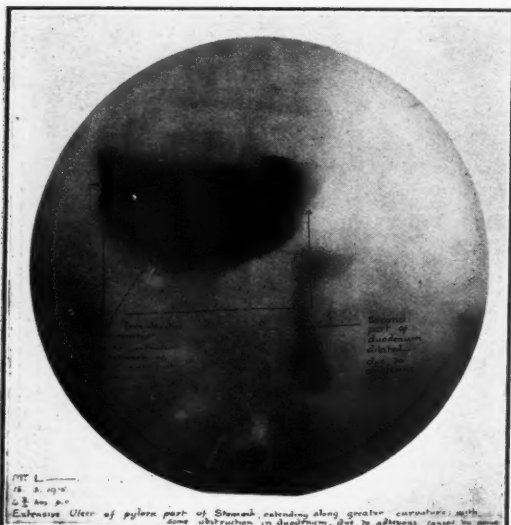
Skilag. 5.—Hour-glass Stomach due to old Contracted Ulcer.



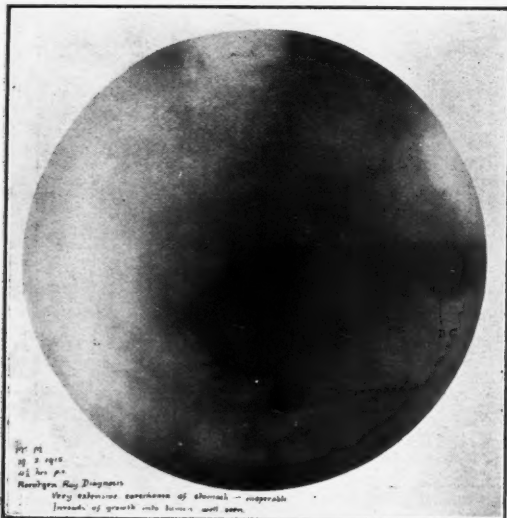
Skilag. 6.—Malignant of Pyloric End, with fine irregularities, and a small incisure.

The Right Side of the Skilagrams Corresponds to the Right Side of the Patient, and vice versa.





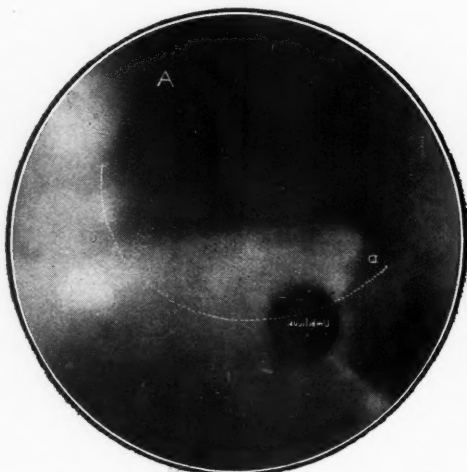
Skiag. 7.—Malignant Ulcer of the Pyloric Part, extending along greater curvature, with some obstruction in duodenum due to adhesions.



Skiag. 9.—Very Extensive Malignant of Stomach, showing inroads into lumen.



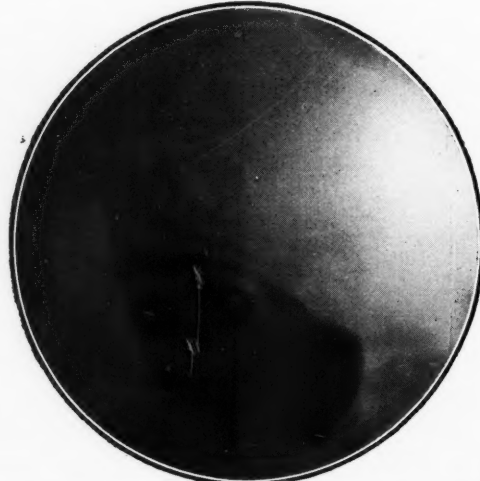
Skiag. 8.—Ulcer of Greater Curvature towards Pyloric End, possibly malignant.



Skiag. 10.—Very Large Malignant of Pylorus and Body of Stomach, five hours after bismuth meal. A = Stomach. D = Duodenum.



Skiag. 11.—Malignant of Stomach, with constriction across middle = hour-glass. "Thumbing" well seen.



Skiag. 12.—Compression defect due to liver. Stomach displaced to the right.

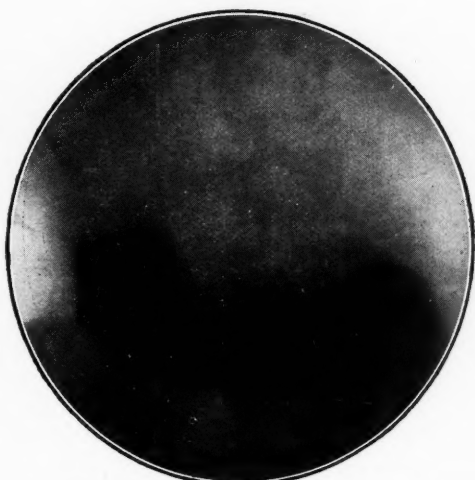
The Right Side of the Skiagrams Corresponds to the Right Side of the Patient, and vice versa.



Skiag. 13.—Duodenal Irritation, due to Cholecystitis, one hour after bismuth meal. Operation: gall-stones. S = Stomach. D = Duodenum.



Skiag. 14.—Gall Bladder Disease. Early rapid emptying and long-persisting residue in the duodenum.



Skiag. 15.—Duodenal Irritation, 10 minutes after meal, showing hypertonus and enlarged duodenal cap. Duodenal ulcer.



Skiag. 16.—Gastric Ulcer at Pylorus, showing large six-hour residue.

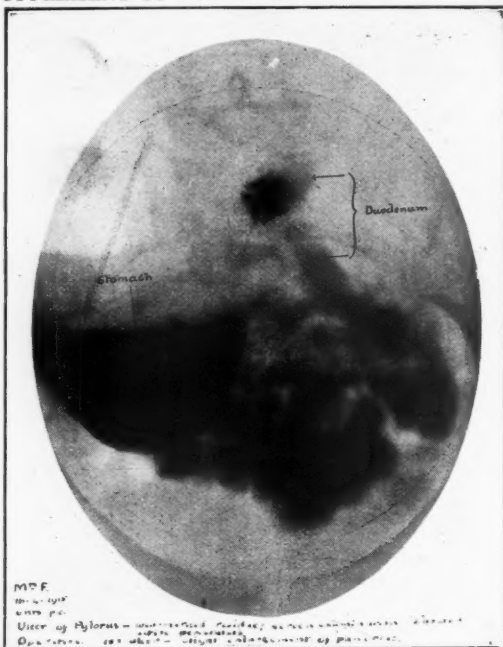


Skiag. 17.—Uncompensated Pyloric Stenosis, due to ulcer. Large six-hour, sickle-shaped residue. Pylorus displaced to right.

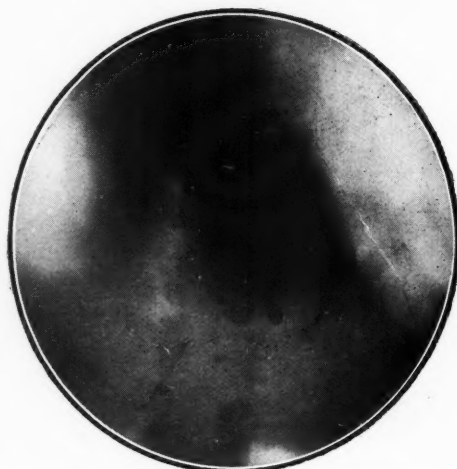


Skiag. 18.—Röntgen Ray Diagnosis, on appearance, as in Skiag. 17—Uncompensated Pyloric Stenosis. Operation—Malignant of Pancreas.

The Right Side of the Skiagrams Corresponds to the Right Side of the Patient, and *vice versa*.



Skiag. 19.—Large Six-hour Residue. Screen showed fair degree of peristalsis. Diagnosis—Gastric Ulcer at Pylorus. Operation—No Ulcer found: slight enlargement of pancreas, showing the insufficiency of residue only as a ground for diagnosis.



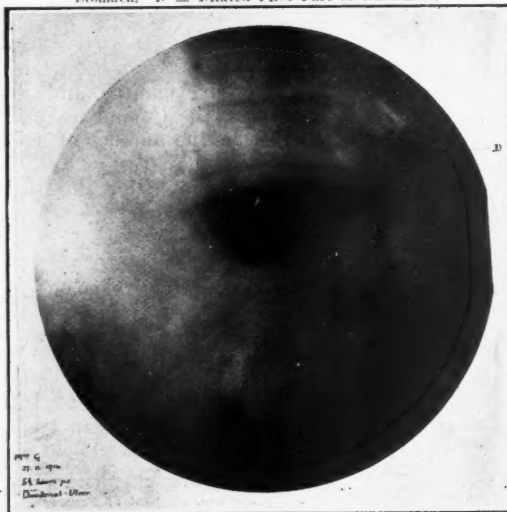
Skiag. 20.—Pyloric Ulcer. Hypersecretion marked. Note also flexed stomach.



Skiag. 21.—Duodenal Ulcer, with Stenosis, six hours after meal. S = Stomach. D = Dilated First Part of Duodenum.



Skiag. 22.—Stenosed Duodenal Ulcer, 6½ hours after meal. S = Stomach. A and D = Duodenal, dilated; A filled with air, D filled with bismuth.



Skiag. 23.—Duodenal Ulcer, 5½ hours after meal, showing duodenal loop.



Skiag. 24.—Obstruction at the Lower End of the Oesophagus.



The investigation has yielded the following table of averaged figures:—

Sex.	Number of Erythrocytes.	Leucocytic Count.	Percentage of Hæmoglobin.	Corpuscular Colour Index.
Boys ..	5,046,100	10,868	89	0.88
Girls ..	5,107,700	9,077	92	0.90

This table shows that the average number of leucocytes per cubic millimetre of blood is distinctly higher in boys, and that the average percentage of hæmoglobin is higher in girls. When the figures are compared with analogous figures obtained by investigation of the blood of children who live in temperate climates, it is noted that there is no diminution in the number of red cells in consequence of residence in the tropics, that the same average figures are obtained to represent the percentage of hæmoglobin, and that children living in the tropics show some slight increase in their leucocytic counts.

The coastal region of North Queensland possesses two well marked seasons—a wet season, with a climate similar to that of Ceylon, and a dry season, with a climate like that of any warm, semi-tropical area. The mean temperatures of the dry season are about 10° F. less than those of the wet season. The records of the average figures for the hæmic characters investigated show no differences between the two seasons.

Ten years ago Arneth extended the technique of hæmatology by a careful examination of the forms of the nuclei of the neutrophile leucocytes. He expressed the results of his observations numerically, by calculating an "index," which is the ratio of the number of cells with nuclei of particular shapes to the total number of neutrophile leucocytes. Drs. Breinl and Priestley have determined the "Arneth index" on the bloods of 150 children, at ages from 7 to 15 years. They find the index to be increased in these children, and record their opinion that this is due to the effect of a tropical climate upon the white race living in the tropics. From the results of differential countings of each class of leucocytes, they state that the percentage number of neutrophile cells is diminished, while the percentage number of eosinophile cells is increased.

Further observations on the characters of the white races in tropical Australia will be awaited with interest.

#### PRIZES FOR INVENTION.

The Russian Government is endeavouring to follow up the legislative steps taken to diminish the consumption of Vodka and other alcoholic beverages by offering a number of prizes for inventions connected with the commercial use of alcohol. Three prizes, valued at £3,250, £1,625, and £525, are offered for the invention of new denaturants or for improvements in existing processes of the denaturation of alcohol. Three other prizes, valued at £6,500, £3,250, and £1,050, are offered for the invention of a new process of application of alcohol in the preparation of a product differing completely from alcohol in its nature. The new application of alcohol would thus be analogous to its application in the preparation of chloroform, ether, etc. Three other

prizes, of £5,416, £2,110, and £555, are offered for the invention of a new process for employing alcohol in the preparation of pharmaceutical compound or perfumery. The conditions attaching to these compounds are that the alcohol may not be recoverable from them. The fourth set of three prizes is for the invention of a new use for alcohol as an intermediary solvent or extractive, or as a precipitating agent. The example quoted is the production of smokeless powder, and the manufacture of artificial silk. The prizes in this section are valued at £3,250, £1,625, and £525.

Two series of four prizes, each valued at £8,125, £5,416, £3,250, and £2,110, will be given for the introduction of improvements in apparatus for utilizing alcohol in internal combustion motors, and for improvements in apparatus for utilizing alcohol for heating. Lastly, four prizes of £5,416, £3,250, £1,625, and £525 are offered for inventions connected with the employment of alcohol for lighting purposes. The specifications of the inventions with or without models must be filed in Petrograd by January 1, 1916. The awards will be made on or before July 1, 1916. The conditions can be examined on application.

It thus appears that the object of the Russian Government is to introduce industrial and other applications for alcohol, in order that the alcoholic industry may be maintained, and that commercially the population shall not suffer by the restriction of the sale of alcoholic beverages. The high value of the prizes should tempt scientists to enter for one or other of the competitions.

#### CHILDREN'S HOSPITAL, PERTH.

The Children's Hospital, Perth, has had many difficulties to contend with during the past twelve months. The hospital contains 120 beds, but, owing to the general commercial depression, and to the large calls that have been made by the various patriotic funds on the charitably disposed, the funds have been so depleted as to necessitate the closing of two wards. At the annual meeting, held in November last year, it was shown that the expenditure had exceeded the receipts, and that the immediate financial needs of the hospital had been met by a special subsidy from the Government. The falling off of subscriptions is causing the Committee considerable anxiety. The sum of £3,000 is required for maintenance during the next twelve months, and unless this amount can be secured, the Committee will be forced to reduce still further the number of beds in occupation. We learn that the President, Mr. H. Boan, has promised £500, provided that the balance of £2,500 is forthcoming. The Committee recognize that the closing of wards will have a very serious effect on the sick children of Perth, and every means are being taken to render this step unnecessary. The hospital has been in existence for six years, and has become a necessity to little sufferers. No less than 1,238 children were treated as in-patients in the financial year ending September, 1914. To curtail this work of charity would be a disaster. It is therefore hoped that the public will take steps to enable the Committee to carry on its excellent work.

## Abstracts from Current Medical Literature.

### MEDICINE.

#### (180) The Diagnosis of Gastric and Duodenal Ulcers.

Einhorn (*Canad. Med. Assoc. Journ.*, February, 1915) states that the cardinal symptoms of gastric ulcer are hæmorrhage from the stomach, which manifests itself by vomiting of blood, or the passing of blood with the stools, and pains in the gastric region. These symptoms, however, cannot be depended upon alone for diagnostic purposes. There are many cases of ulcer in which these symptoms are not noted, when the ulcer is in a quiescent state. Blood in the vomit or in the stools may be undetectable macroscopically, and only detectable by chemical means. The author emphasizes the value of the thread test. This is carried out as follows: A tiny bucket attached to a thread is swallowed by the patient; the thread is fastened to the cheek, and a sufficient length is attached to allow the bucket to enter the duodenum. The bucket remains in the digestive tract for several hours. When the ulcer is situated at the cardiac or pyloric end of the stomach, the portion of thread lying in contact with the moist surface of the ulcer becomes impregnated, and the level is recognizable when the thread is withdrawn. This corresponds to the situation of the ulcer. The test will reveal ulcers even if no hæmorrhage or distinct oozing of blood has occurred. A sharp stain at a definite spot on the thread is of more value than a diffuse stain; the stain produced by contact with the ulcer is dark brownish, while the stain produced by the erosion of a surface caused by the pulling thread is bright red and diffuse. Ulcers situated in the cardia, the lesser curvature, pylorus, or especially in the duodenum can usually be recognized by the thread test. On the other hand an ulcer on the anterior wall of the stomach will not come into contact with the thread, and there will be no stain upon it. The author does not agree with Moynihan that the diagnosis of duodenal ulcer can be made on clinical symptoms, in association with a history of the case. He is of opinion that the diagnosis of duodenal ulcer should not be made solely on pain occurring two or three hours after meals, late hunger pain, the periodic appearance of these symptoms, periods of suffering for two or three weeks, interchanging with feelings of euphoria, and chronicity. This symptom complex has been proved to be present in gastric ulcer, and the author believes that it may exist in cases in which no ulcers are present. Nevertheless, the functional disorders of digestion responsible for these symptoms ultimately lead to ulceration, if continued for a sufficient length of

time. The symptoms are due to hyperchlorhydria; the resultant ulcer exaggerates the symptoms. He points out that large hæmorrhages may come from the varicose veins frequently found at the lower end of the œsophagus in cases of cirrhosis of the liver, and consequently the mere presence of blood in the motions is not to be taken as diagnostic of either gastric or duodenal ulcer.

#### (181) Syphilitic Nephritis.

Stengel and Austin (*Amer. Journ. of Med. Sciences*, January, 1915) have come to the conclusion that syphilitic lesions, such as gummata, rarely attack the kidneys. On the other hand, cases of nephritis of various types are met with in which the aetiology is obscure; and in some of these it is not improbable that syphilis is the hidden causal factor. In the absence of histological evidence, and in view of the difficulty of tracing a nephritis back to a chronic affection, the proof of the syphilitic nature in these cases must be indirect. In some cases of supposed renal syphilis, spirochaetes have been stated to be present in the urine, but these statements must be received with caution. Some authors have been inclined to attribute nephritis in syphilitics to mercury rather than to syphilis. A subacute, rapidly developing nephritis has been observed in early secondary syphilis affecting persons whose kidneys had been previously healthy, and who had not taken mercury. Improvement followed treatment with mercury in these cases. Nephritis in secondary syphilis begins acutely, and as a rule in the first two or three months. The onset is insidious, albumin is abundant, and there may be uræmia and anuria. In the later stages of syphilis, amyloid kidney and interstitial nephritis are the most common forms of renal disease, but gummata also occur, and there are numerous records of nephritis developing in late syphilis apparently cured or greatly improved by anti-syphilitic treatment. Munk has found double refractile lipoids in the urine of patients in whom there was reason for suspecting syphilis. He came to the conclusion that a relationship between syphilitic nephritis and the presence of doubly refracting lipoids in the urine existed. In view of these facts, Stengel and Austin examined the urine of 46 patients with a polarizing microscope. In 23 albumin and casts were found. In 6 patients a positive Wassermann reaction was obtained; 3 had strong presumptive evidence of syphilis, but gave a negative Wassermann reaction, and 14 showed no evidence of syphilis. Lipoids were found in the urine of the 6 patients with a positive Wassermann reaction, while it was present only in 5 of the 14 non-syphilitic patients. It is considered that there is evidence to show that there exists a parenchymatous type of nephritis due to syphilis, characterized by an abundant albuminuria, with hyaline, granular, and occasionally epithelial

casts, by a tendency to produce œdema, by a moderate power of reduction of phenolphthalein, and by the presence of doubly refractile lipid globules, varying in size from that of an erythrocyte to 3 or 4 times that diameter. They are sometimes seen floating free in the urine, but are not rarely a constituent of a compound granular cast, or they may be situated on an epithelial cast. Similar lipid globules may be found in severe, acute or chronic parenchymatous nephritis of other aetiology. In the authors' last 84 cases of nephritis, infections, lead, alcohol, senility, etc., were recognized as the causes in 66. In 18 cases no such factors could be determined. A positive Wassermann reaction, or an unquestionable history of syphilis, or both was noted in 8 patients, no Wassermann test had been carried out in 6, and in 4 cases syphilis was excluded. It is significant that syphilis should have been present in so many of the otherwise unexplained cases of nephritis.

#### (182) The Diagnostic Value of Sarcinæ in the Stomach.

Chambers (*Dominion Medical Monthly*, January, 1915) states that so far as is known gastric sarcinæ are peculiar to the stomach. They are sometimes found in the fæces, but never unless they are also present in the stomach, and it is improbable that the primary growth of the germ takes place in the intestine. The origin of the growth in the stomach has not been explained. The size, shape, and other characters of these sarcinæ indicate that they have practically nothing in common with the pigment-forming sarcinæ of the air. Morphologically there are two forms of sarcinæ ventriculi, which are, however, probably different stages of development of the same organism. One, the large-celled variety, is characterized by the cells exhibiting a baleshaped arrangement, and staining with iodine; the other appears as small cocci arranged in irregular groups, and not staining with iodine. Both forms are always found together, though not to the same extent. Sarcinæ in gastric contents indicate as a rule a high degree of stagnation of food in the stomach. The presence of sarcinæ alone, or sarcinæ along with Boas-Oppler bacilli in cases of gastric disease of a few months' duration is frequently due to a malignant process. The finding of both sarcinæ and Boas-Oppler bacilli in the gastric contents, whether free hydrochloric acid be present or absent, may be due to either cancer or peptic ulcer, but is more likely to be the result of the former than of the latter.

### NEUROLOGY.

#### (183) Paralysis of the Spinal Accessory Nerves following Operation.

Ninian Bruce (*Review of Neurol. and Psychiatry*, February, 1915) states that it is well known that paralysis of the spinal accessory nerve has occurred

after the operation of removal of tuberculous glands in the neck, but it is rare for this to be met with several years after the operation. He records two cases of this nature. In one the patient, aged 21 years, presented himself at the hospital on account of two patches of *alopecia areata* on the head, and incidentally sought advice for a bad cough which had troubled him for several months. He had had tuberculous glands removed from the left side of the neck at the age of 10, and at 15 he had had glands on the right side of the neck removed. He had kept in good health since that time, until he developed the cough. On examination it was found that the patient was thin, and showed extensive scars on both sides of the neck. The sterno-mastoids stood out prominently, and contracted well, but they appeared to be somewhat atrophied. The trapezii were both very atrophic, being represented above the scapula by only thin sheets of muscle. No other muscles were involved. In this case the absence of the involvement of muscles other than the sterno-mastoid and the trapezius excluded the possibility of a facio-scapulo-humeral (Landouzy-Dejerine) type of muscular dystrophy, and left no room to doubt the correctness of the diagnosis of double spinal accessory paralysis, a somewhat rare condition. The second case was that of a man who showed isolated paralysis of the right trapezius. He gave a history of operation for removal of tuberculous glands from the neck 14 years previously. Since then he had had no further trouble, and had been able to continue at his work till recently, when a swelling began to develop on the right side of the neck. The paralysis of the right trapezius was then noticed. A well-defined scar was visible behind the upper and middle portion of the right sterno-mastoid. In this case the sterno-mastoid escaped involvement, and no other muscles except the trapezius were affected. The particular point about these two cases was that the spinal accessory did not appear to have been injured at the operation. It was not until 10 and 14 years later that the paralysis became visible, and the feeling of weakness in the shoulders had only recently been noted. If it be correct that the explanation consists in a subsequent involvement of the nerve in the scar tissue, it would be interesting to discover how it is that the condition has not been described more frequently.

#### (184) Double Cervical Rib Nerve Symptoms.

Goodhart and Taylor (*Journ. Nervous and Mental Dis.*, February, 1915) describe the case of a woman, aged 30 years, whose history, both family and personal, was entirely negative from a neuro-pathological standpoint. Symptoms referable to the cervical ribs dated apparently from the patient's eighth year, when she began to suffer from pains in the left shoulder, radiat-

ing down the arm, and the entire left upper extremity would become paroxysmally numb. There was also a gradual development of a sense of discomfort about the left shoulder, and a protusion of the left shoulder blade, which, when pressed upon, gave rise to pain and numbness extending through the arm. These symptoms persisted, and in the course of a few years there was also inability to use the left index finger, and a general lack of dexterity in using the left hand. When 23 years of age there was noted weakness in the grasp, and in the finer movements of the left hand, followed by progressive atrophy of the small hand muscles, both the thenar and hypothenar surfaces being involved. Soon afterwards a coldness of the left upper extremity, particularly from the elbow to the finger tips, was at times noted. When the patient came under Goodhart's care, he observed areas of hypæsthesia and hyperalgesia irregularly distributed over the left forearm and hand. These areas varied, and finally disappeared, leaving an area of hypæsthesia for all forms of sensation in that part of the forearm and hand corresponding to the innervation by the inner cord of the brachial plexus, particularly the ulna distribution. At this time the left hand presented the appearance of the typical *main en griffe*, and some atrophy of the pectoral muscles was noted. Further examination revealed osseous tumours in each supraclavicular space, which were recognized as cervical ribs. The one on the left side was found two inches outside of the sternal insertion of the sterno-cleido-mastoid muscle, extending vertically upward two inches from the upper clavicular border. On the right side a smaller eminence was found in about the same position. Scoliosis extending from the sixth cervical to the fifth dorsal, with the convexity to the left side, and with a compensatory convexity below was detected by X-rays. Bilateral cervical ribs were seen attached to the body of the VII. cervical vertebra, articulating at their distal ends with a facet from the upper border of the first dorsal ribs. On the left side the supernumerary rib measured about 1½ in.; the right one about 2 inches in length. Three years later the patient noticed weakness in the right index finger, and an occasional numbness of the right thumb, and thus involvement of the brachial plexus on the right side developed. The next year removal of both false ribs was undertaken. Upon exposure it was seen that the subclavian artery crossed the first rib anteriorly, and below the distal end of the cervical rib, the roots of the plexus lying over the false rib, as had previously been determined by palpation. The VIII. cervical and the I. dorsal roots were undergoing the greatest tension and pressure. This coincided with the symptoms. Immediately following operation there was paralysis of nearly all the muscles, and the sensory surfaces supplied by the plexus

on both sides. In the course of a week motion and sensation began to return, and the improvement, though slow, was constant. About one year after the operation there was still considerable atrophy, and very slight sensory changes over the inner surface of the forearm. Six years after the operation there was marked improvement in the muscle supply.

#### (185) Reflex Phenomena in Spastic Paraplegia.

Walshe (*Brain*, Pt. 37, 1915) considers the reflex phenomena accompanying spastic paralysis of the lower limbs from a physiological point of view, and tries to correlate these, and to establish an analogy between them and the reflex phenomena described by Sherrington in his physiological researches. The author deals mainly with reflex flexion. This occurs as the spontaneous flexor spasms seen in many cases of spastic paraplegia, and can also be obtained by cutaneous or deep stimuli applied to almost any part of the limb. This movement, when analysed is found to consist of a single movement of flexion at the hip and knee, with dorsiflexion of the foot and toes, especially the hallux. The receptive field of this reflex includes the skin and deep structure of all but the proximal extremity of the limb. The reflex is most readily elicited from the sole. The author regards the Babinski reflex as part of this reflex flexion, which he considers to be strictly analogous with the nociceptive flexion reflex of the hind limb of the spinal animal. He considers the rigidity of the leg in hemiplegia and in paraplegia in extension analogous with Sherrington's decerebrate rigidity. The condition of the legs in the flexed form of paraplegia is compared with that found in the spinal animal. He contrasts the two forms of spastic paralysis of the lower limbs, viz., the extended and flexed forms, and finds that they differ, in that in the former both extensor and flexor group of muscles show a high degree of reflex activity, while in the latter only the flexors retain any reflex action. This essential difference has not been previously described. Comparing the two groups of muscles, he concludes that each has a specific type of reflex action, that of the extensors being tonic in character, while that of the flexors is phasic. The extensors maintain a constant tonus; the spasticity of the extended leg; while the flexors are responsible for reflex movements, and do not show a maintained tonus like their antagonists. The nervous mechanism of both movements and tonus is considered, and the author, working on the analogy with animal physiology, postulates an extra-pyramidal efferent path, which he regards as subserving the tonic activity of the limb extensors. The crossed plantar reflex is dealt with at length, and is regarded as part of a crossed extension reflex.



## British Medical Association News.

### SCIENTIFIC.

A meeting of the New South Wales Branch was held on May 28, 1915, at the B.M.A. Building, 30-34 Elizabeth Street, Sydney, Dr. George Armstrong, the President, in the chair.

Dr. H. R. Sear read a paper on "The Röntgen Ray Diagnosis of Surgical Diseases of the Stomach and Duodenum." The text of the paper will be found on page 527.

In the discussion, Dr. Gordon Craig prefaced his remarks by congratulating Dr. Sear on his excellent paper, and by pointing out that he had been much struck when visiting the surgical clinics of the world at the remarkable advance which had followed the epoch-making discovery of X-rays in the diagnosis of gastric lesions. The application of this method of examination had, as was to be expected, aroused a wave of enthusiasm, with the result that too much had been claimed for it. In some areas the diagnostic value of radiography was doubtful. He regarded positive X-ray evidence as of great value, whereas negative evidence had little or no significance. After referring to the typical appearances of the incisura in the mid-gastric region, described by Dr. Sear, and of the irregular, worm-like look of the filling defects associated with malignant disease, he turned to the interpretation of the appearances met with in duodenal lesions. The individuality of the radiographer had to be taken into account. He had experienced instances in which the rays had failed to divulge the true nature of the affection. In a case of a sailor, aged 50 years, this was well marked. The man had been in perfect health up to six months before he was seen. He complained of a falling off in weight, which amounted to about 7 lb. in the six months. He complained also of stomach trouble, including indigestion, wind, and discomfort after meals. Dr. Sear had examined him by means of the screen, and reported that the stomach emptied itself within the normal time. He had felt discouraged by the result of this X-ray examination, but determined, after all, to operate. After the abdomen was opened, he found a duodenal ulcer which had perforated, and had set up a large abscess between the bowel and the liver. He was surprised that such a gross lesion should not have been visible by X-rays. He had therefore come to the conclusion that a negative report of the radiographer should not dissuade the surgeon from operating in duodenal cases.

He was of opinion that X-rays were of considerable value in determining the nature of obstruction in the large intestine in old people. He pointed out that X-rays never told a lie, and that when they failed, the human element was at fault.

In regard to cases of obstruction of the œsophagus, Dr. Gordon Craig emphasized the utility of endoscopic examination as a complementary means. He recited the details of a very striking case with which he had dealt recently. He had never seen such a sight before. There was an œsophageal cancer at the cardia. When seen through the endoscope, the evidence was absolutely clear. He saw the nodular, slightly hæmorrhagic ulcer as plainly as if it were on the table, and he was able to detect that peculiar, disagreeable odour, characteristic of malignant disease of the floor of the mouth. The diagnosis was confirmed by Dr. Sear by means of Röntgen rays. He thought that it was not sufficiently recognised that œsophagoscopy should stand in the same complementary relationship to other methods of œsophageal examination as cystoscopy stood to physical and chemical diagnostic methods.

Dr. Mills emphasized the point that radiograms were merely pictures, and were not the things themselves. Dr. Craig's œsophageal case had illustrated this point very clearly. There was a great difference between seeing a thing, and seeing its shadow only. He used X-rays in cases of difficult diagnosis, but was careful in the interpretation of the picture. In the next place, he suggested that the bismuth meal produced a condition which was altogether artificial. It was one thing to put a red meat meal into the stomach, and another to put in some porridge with a little bismuth.

In regard to the limitations of the diagnostic value of X-rays, he instanced a case which he had seen with Dr.

Sear. The symptoms pointed to gastric neurasthenia, but he was loath to make this diagnosis until everything had been excluded. Dr. Sear found what he described as a "leather bottle" stomach. The symptoms disappeared without any treatment, and the patient appeared to be well. A second examination was carried out, and no trace of the "leather bottle" appearance was detected. He proposed to continue watching and waiting, and would have another radiographic examination made at a later date. In many cases skiagrams were very difficult to interpret, and he was inclined to the opinion that the imagination of the radiologist was even greater than that of the pathologist. On the other hand, X-rays should be used in conjunction with other methods of examination. At times it would not help to differentiate between certain conditions, *e.g.*, duodenal ulcer, gall stones, and appendicitis. In spite of these criticisms, he expressed the opinion that Dr. Sear had given a very valuable account of the diagnostic uses of X-rays.

Dr. Ayres spoke of the difficulty experienced by practitioners in interpreting radiograms. Interpretation was a matter of study, and those who had devoted time to it had learned the meaning of the various pictures. He dealt at some length with the question of the choice of bismuth or barium salt for this work. Barium was first used in 1904 for gastric radiology. The salt employed was the sulphate. This had been given up on account of its toxic properties. Bismuth nitrate had been suggested, and more recently the choice lay between the carbonate and the oxychloride. It was stated that the carbonate, by neutralizing the acid of the stomach, inhibited the motility. Barium sulphate was quite harmless, even when used in large quantities. The emptying of the stomach was effected twice as quickly when barium was used as when bismuth was used.

Radiologists never asked a surgeon to rely absolutely on the result of the X-ray examination. Moreover, other forms of examination should be carried out, and the radiological examination came last. He exemplified the value of X-ray examination in cases of œsophageal obstruction, gastric ulcer and duodenal ulcer. He cited a case in which the diagnosis of duodenal ulcer was made on the basis of the clinical examination. X-rays yielded a negative result, and no ulcer was found at the operation. In another case, the practitioner in charge was certain of the existence of a gastric ulcer, in spite of a negative X-ray examination. An operation was performed, and no gastric or duodenal ulcer was found. The condition was found to be due to gall stones. Similarly, this method of examination had proved of great value in revealing the presence of carcinoma of the stomach. He thought that surgeons would derive great benefit if they would study their cases together with the radiographer.

The advance in radiography during recent times was very considerable. It was now necessary to use apparatus which would record results within a fraction of a second. A new, modern apparatus would be acquired by the Sydney Hospital in a short time to comply with these requirements.

Dr. Litchfield spoke of a case of enterospasm in a boy aged 8 years, and asked those present if they could suggest what the pathology of the condition could have been. There were definite symptoms of partial intestinal obstruction, including vomiting and visible peristalsis. He thought the child would die. Dr. Sear had examined him, a bismuth meal was given, and it was seen that the greater part of the meal was still in the stomach after five hours. At the end of nine hours, half of the meal was still retained in the stomach. Dr. Wade had operated, in the hope of finding a kink or other form of obstruction. Nothing, however, was found, save that the small intestine was collapsed. Strange to say, the child was considerably better after the operation, and was apparently well when discharged a short time later.

Referring to Dr. Mills's remarks about imagination, Dr. Litchfield said that he had come to the conclusion that it was often necessary for the pathologist to correct the imagination of the physician.

In his reply, Dr. Sear emphasized the fact that negative evidence was frequently the cause of mistaken diagnosis. On the other hand, he did not think that the examination led to a negative result as frequently as some speakers imagined. In regard to Dr. Craig's case, he wished to point

out that, as no communication existed between the abscess and the intestine, he did not see how he could hope to demonstrate its presence by means of a bismuth meal. Turning to Dr. Mills, he agreed that shadow pictures were useless. The important part of the examination was carried out with the aid of the screen. A bismuth meal was not so artificial as Dr. Mills would have it. Small amounts of bismuth had been added to ordinary meals, and it had been shown that there was no difference between these cases and those in which the ordinary bismuth meal was used, in so far as the motility was concerned. In regard to the "leather bottle" stomach case, Dr. Sear maintained that the appearances were typical, and he called Dr. Mills' attention to the fact that at the second examination a small residue was seen, which proved that the stomach was not a normal one. Dr. Mills had apparently forgotten this fact.

Sir Herbert Maitland had authorized him to say that in 80% of the cases examined by the speaker for him, the diagnosis had proved correct.

In reply to Dr. Ayres, he wished to protest against the suggestion that X-ray examinations should be the last method employed. Continental and American surgeons put it in the first place. He thought that the physician should collate all the evidence obtained, and build up his diagnosis from all the elicited facts. In regard to the choice between bismuth and barium, he saw no advantage in favour of the latter. Bismuth undoubtedly delayed motility to a slight extent, and barium increased it. Bismuth oxychloride was quite harmless, even in large doses, and he thought it would be disadvantageous to give up its use after all the standards had been set up. In reply to Dr. Litchfield, he pointed out that enterospasm did not come within the scope of his paper. He was not aware that he had examined the case for Dr. Litchfield.

Dr. S. H. Harris read a paper on "Some Observations on the Diagnosis and Surgical Treatment of Pyuria." This paper will be published in a subsequent issue, together with the discussion which followed.

The annual meeting of the Bendigo and Northern District Division of the Victorian Branch was held at the Bendigo Hospital on May 24, 1915, Dr. Ffrost, the President, in the chair.

Dr. Douglas demonstrated an old woman, who was suffering from a large multilocular tumour of the abdomen. It was thought by those who had examined the patient, that the tumour was an ovarian growth. An operation was performed, and it was found that it was a *hydronephrosis due to calculi*. A large number of stones were removed, and 30 pints of fluid were evacuated. The speaker held the opinion that this case represented the largest hydronephrosis on record.

He also showed an Italian, aged 22 years, who had an attack of adenitis involving the glands of the neck. The axillary glands were slightly enlarged, and the spleen was distinctly enlarged. A solid mass in the mediastinum was seen in a skiagram. It was thought that the condition was *acute Hodgkin's disease*.

Dr. Ker showed two instances of *opacity of nerve fibres in the retina*. In the first case, that of a man, there was a large, flame-shaped area, while in the second patient, a small girl, a halo of opaque fibres were seen radiating from the optic discs. In both cases the condition was discovered accidentally.

Dr. Ker also showed a man with advanced syphilitic retino-choroiditis. The vision was reduced to fingers at a few feet, and a great deal of pigment was visible in each fundus.

Dr. Webster showed a very large *haematoma of the scalp* in a child. The scalp was moveable over the effused blood.

He also exhibited a case of advanced *epithelioma of the tonsil*, occurring in an old man, who had only complained of the symptoms for a fortnight. The breath was foetid, and dysphagia was marked.

A number of skiagrams, specimens and charts were exhibited.

The office-bearers for the ensuing year were elected, as follows:—

President: Dr. Catford.

Vice-President: Dr. T. C. Ker.

Honorary Secretary and Treasurer: Dr. Williams.

Members of the Committee: Drs. Green, Ffrost, Penfold, and Douglas.

The sum of 10 guineas was voted from the funds of the Division to the Belgian Relief Fund.

#### MEDICO-POLITICAL.

A meeting of the Council of the Victorian Branch was held at the Medical Society Hall, East Melbourne, on May 26, 1915, Dr. Honman, the President in the chair.

*Workers' Compensation Act.*—After some discussion, it was resolved that members be recommended to charge private companies 10s. 6d. for a first medical examination for the purposes of the Workers' Compensation Act, when carried out at the practitioner's house, and £1 1s. and mileage when carried out elsewhere. A circular will be prepared in accordance with this resolution, and issued to the members shortly.

*Lodge Appointments.*—It was determined that the question whether new-comers in a district should be permitted to apply for appointments to Friendly Society Lodges should be referred to the members.

*The Practices of Members on Military Service.*—The Ethical Committee was instructed to draft resolutions having for their object the safeguarding of practices of members who have been accepted for medical service at the front. The Ethical Committee was instructed to follow the suggestions embodied in the recommendation of the Scottish Medical Service Emergency Committee (see *British Medical Journal*, January 2, 1915).

*Alcoholism and the War.*—It was resolved that a special meeting be called for June 2, 1915, to consider certain resolutions dealing with the abstention from alcohol passed by the Council on May 13, 1915 (see *The Medical Journal of Australia*, May 29, 1915, p. 512). The question whether a deputation should wait on the State Premier for the purpose of laying the views of the members before him will also be referred to the meeting.

*State Hospitals.*—The President submitted a full report on the control of patients in, the management of, and the fees chargeable at State hospitals throughout Australia. The report was adopted. It was resolved that after it has been supplemented by data concerning the South Australian Hospitals the whole report be referred to the Federal Committee for consideration.

It was proposed that an investigation into the conditions of State and Federal medical service be undertaken, and that this matter be referred to the Federal Committee.

*Medical Officer on the Transcontinental Railway.*—A communication from the Council of the Queensland Branch referring to an advertisement for applications from medical men for the position of medical officer for the Transcontinental railway, at a remuneration of £450 per annum was considered. It was stated that operations, anaesthetics, attendance upon wives and children, attendance at confinement and abortions were included in the duties of the medical officer. The number of men to be attended was 1,776. The salary, therefore, was equivalent to a capitation payment of about 5s. per annum. It was proposed that a deputation wait on the Federal Authorities for the purpose of calling attention to the sweating rate of remuneration. Dr. J. H. L. Cumpston pointed out that the salary had been raised to £500; that the number of men to be attended would be 1,000; that no midwifery attendance would be required; that in cases of accident, emergency treatment would be necessary, while later treatment would be carried out in hospitals, and that the work the medical officer would be called upon to perform would be adequately remunerated at the salary offered. He also stated that no applications had been received, and that it had therefore been decided to provide medical attendance from Kalgoorlie, and Port Augusta. In view of the fact that no immediate action appeared to be necessary, the matter was referred to the Federal Committee.

The following were elected members of the Branch:—

Dr. Ellice J. Davis, Queen Victoria Hospital.

Dr. George S. Robinson, Children's Hospital.

Dr. George E. Cranston, Bruthen.

Dr. J. C. M. Harper, Wangaratta Hospital,

Dr. Honman, Dr. Boyd, and Dr. Mollison were appointed representatives of the Branch in the deputation which will wait upon the Premier for the purpose of urging the advisability of moving the Medical School to a site in the grounds of or near the Melbourne Hospital.

The following have been appointed members of the Western Australian Branch:—

Dr. W. H. Collins, Children's Hospital, Perth.  
Dr. R. P. Young, Perth Hospital.

We have been requested to acknowledge in the name of the Treasurer of the Queensland Branch the receipt of the following subscriptions to the Belgian Fund:—

	£	s.	d.
Amount previously received .. . . .	91	11	6
Dr. Cameron, D. A., Brisbane (April, May and June contributions) .. . . .	3	3	0
„ Douglas, G. A. C., Brisbane (May contribution) .. . . .	1	1	0
„ Love, Wilton W. R., Brisbane (May contribution) .. . . .	4	4	0
„ McKillop, L. M., Blackall (May and June contributions) .. . . .	2	2	0
„ Page, S., Brisbane (April and May contributions) .. . . .	2	2	0
„ Patterson, M. S., Ipswich (May and June contributions) .. . . .	2	2	0
„ Spark, E. J. S., South Brisbane (April, May and June contributions) .. . . .	3	3	0
Total .. . . .	£109	8	6

#### BELGIAN DOCTORS' RELIEF FUND. South Australia.

The Treasurer of the South Australian Branch, Dr. Lenon, wishes to acknowledge the receipt of the following subscriptions. The sum of £400 has already been forwarded to London.

	£	s.	d.
Amount previously acknowledged .. . . .	403	6	0
Dr. Benson, A. V. .. . . .	*5	15	6
„ Bollen, P. .. . . .	*3	13	6
„ Chapple, F. J. .. . . .	2	2	0
„ Everard, J. E. .. . . .	1	1	0
„ Goode, Arthur .. . . .	†2	0	0
„ Goode, M. E. .. . . .	5	0	0
„ Hamilton, J. H. G. .. . . .	3	3	0
„ McGlashan, J. E. .. . . .	2	2	0
„ Russell, W. H. .. . . .	2	2	0
„ Sweetapple, H. A. .. . . .	2	2	0
„ Verco, W. A. .. . . .	5	5	0
„ Wigg, H. H. .. . . .	3	3	0
Total .. . . .	£440	15	0

\* Including Dinner Subscription. † Second Donation.

### Public Health.

#### INFECTIVE DISEASES IN QUEENSLAND.

The following notifications have been received by the Department of Public Health, Queensland, for the week ending May 22, 1915:—

Diseases.	Number of Cases.
Diphtheria .. . . .	45
Membranous Croup .. . . .	1
Enteric Fever .. . . .	23
Pulmonary Tuberculosis .. . . .	10
Scarlet Fever .. . . .	7
Puerperal Fever .. . . .	1
Varicella .. . . .	7
Erysipelas .. . . .	3
Total .. . . .	97

#### THE HEALTH OF NEW SOUTH WALES.

The following notifications have been received by the Department of Public Health, New South Wales, for the fortnight ending May 24, 1915:—

Disease.	Metropolitan Combined Districts. Cs. Dths.	Hunter River Combined Districts. Cs. Dths.	Rest of State. Cs. Dths.	Total. Cs. Dths.
Enteric Fever .. . . .	27 2	— —	33 8	60 10
Scarlatina .. . . .	185 1	14 —	136 1	335 2
Diphtheria .. . . .	110 2	8 —	129 3	247 5
Ant'r'r Poliomyelitis .. . . .	— —	— —	1 —	1 —
Malaria .. . . .	1 —	— —	— —	1 —

The number of cases of enteric fever is considerably less than that notified in the preceding fortnight, and very markedly less than that registered in the corresponding fortnight of 1914. While the incidence has decreased, the mortality has increased. In the preceding fortnight, one death, associated with 100 notifications, occurred. In the fortnight ending March 25, 1914, there were 14 deaths and 163 notifications, while, as will be seen from the table, in the fortnight ending May 24, 1915, 10 deaths were associated with 60 notifications. The period is too short to admit of the case mortality being expressed. The incidence of scarlatina and the number of deaths from this cause have not varied within the past few weeks. On the other hand, in the corresponding fortnight of last year, there were only 128 cases and no deaths.

The number of cases of diphtheria notified in the preceding fortnight was 321. It is too early to draw any conclusion as to whether the decrease is accidental or real. In the corresponding fortnight of 1914 there were 340 cases and 7 deaths.

In the case of anterior poliomyelitis, the reduction in the incidence appears to be real. In the fortnight ending May 25, 1914, there were 16 cases, whereas in the preceding fortnight, as in the fortnight under review, there was only one case.

#### THE HEALTH OF VICTORIA.

The following notifications have been received by the Department of Public Health, Victoria, for the week ending May 27, 1915:—

	Metropolitan. Cs. Dths.	Rest of State. Cs. Dths.	Totals. Cs. Dths.
Diphtheria .. . . .	35 7	35 1	70 8
Scarlet Fever .. . . .	1 —	12 —	13 —
Enteric Fever .. . . .	8 1	21 —	29 1
Pulmonary Tuberculosis .. . . .	14 6	6 3	20 9

#### DISPOSAL OF GARBAGE IN SYDNEY.

Acting on the powers acquired under the provisions of the Public Health Amendment Act, 1915, the Health Department of New South Wales is investigating the various garbage and rubbish tips in the metropolis and suburbs. The Minister has announced his intention of doing away with the present system, and of compelling the municipalities to institute disposal by incineration. It is anticipated that the investigation will bring to light a highly unsatisfactory state of affairs.

In the meantime, the City Council have again considered the question of the disposal of garbage, rubbish, and sewage, and have again postponed taking immediate steps. On May 25, 1915, Alderman Lawrence moved that no notice be taken of a communication from the Government, pointing out that nothing had been done to remedy the evil of punting out to sea.

#### SMALLPOX AT KURRI KURRI.

The Health Department has announced the discovery of two additional cases of smallpox in the Kurri Kurri district. Both patients are members of one household.

It is not considered that any alarm need be felt at the recurrence of smallpox in this district. The source of origin of these cases has been traced by the officers of the Department, and has been found to be due to infection passed through an intermediary in a form which was unusually mild.

It is recognized that there is still a possibility of an isolated case occurring in the Kurri Kurri district, but it is regarded as practically certain that any such cases will be strictly limited. Medical practitioners in the district are very much on the *qui vive*, and report at once any cases



which they regard as suspicious. A fair proportion of the population is successfully vaccinated, and hitherto the measures taken by the Health Department, with the assistance of local medical practitioners, have been very successful in promptly suppressing all outbreaks of smallpox in country districts.

## Hospitals.

### MATER MISERICORDIÆ PUBLIC HOSPITAL, SOUTH BRISBANE.

The annual meeting of the Mater Misericordiæ Public Hospital, South Brisbane, was held on April 12, 1915, His Excellency the Governor of Queensland in the chair.

A large number of distinguished persons attended the meeting, and expressed themselves highly impressed by what they were able to inspect.

His Grace the Coadjutor Archbishop of Brisbane, welcomed Sir Hamilton Goold-Adams and Lady Goold-Adams on behalf of the Sisters and the staff. He pointed out that the large majority of the patients treated in the hospital during the year had been non-Catholic. Sickness or need were the only passports needed for admission. The hospital has lately become a training school for nurses, and there were at that time 14 secular probationers in training. Twenty beds had been placed at the disposal of the Defence Department.

In his reply, His Excellency paid a high tribute to the institution, and the manner in which it was managed. He felt sure that nowhere could patients have more satisfactory surroundings or better care. Since it was essential for the proper conduct of permanent institutions of this kind that there should be a constant and generous support, he expressed the hope that there would be no neglect of the Mater Misericordiæ Hospital on the part of the public.

The annual report was presented by Dr. Page, and its adoption was moved by the Hon. D. F. Denham, who emphasized some of the points arising out of it, and called attention to the fact that no item was more readily voted by the Queensland Parliament than the £1,000 which appeared on the estimates for the hospital.

The Hon. G. W. Gray moved a vote of thanks to the honorary staff. After this had been carried, the Hon. Dr. Taylor and Dr. Hopkins responded.

The annual report deals with the work carried out in the year 1914. From the data given, it appears that the number of patients admitted during the year was 1,482, and of those remaining in the hospital on January 1, 1914, 64, making a total of 1,546. This number has to be reduced by 81, which represents the number of patients still under treatment on December 31, 1914, so that the total number of patients dealt with for statistical purposes was 1,465. The compilers of the report fall into the usual error of calculating case mortality from the total number of patients under treatment, including both those in residence on January 1 and those in residence on December 31. The number of patients discharged during the year was 1,348, while 117 died. Of the last-mentioned number, 24 died within 24 hours of admission. The correct case mortality was therefore 7.98%, or if the patients dying within the first 24 hours be excluded, it would be 6.34%. The number of out-patients treated during the year was 3,047, and of casualties, 440.

The classification of the diseases dealt with is identical with that in general use for the purpose of the compilation of vital statistics, and is unsatisfactory, partly because the grouping is such as renders it difficult or impossible to trace the causes of the various affections, and partly because the method of attempting to divide diseases according to the system alone leads to the inclusion of diseases which have little or nothing to do with the organ or tissue which is primarily affected. For instance, cerebral hæmorrhage is grouped under diseases of the nervous system, whereas the affection is obviously an arterial disease, and should be grouped either with the diseases of the cardio-vascular system, or under the various headings of arterial poisons, such as gout, lead, syphilis, alcohol, etc. It is further use-

less to group under the heading of general diseases, epidemic infective processes, like enteric fever, drug poisoning, like alcoholism, lead poisoning, etc., metabolic disturbances, or inflammatory lesions, like those underlying diabetes, malignant diseases and benign tumours.

It appears that 86 persons were treated for affections of the cardio-vascular system, excluding chronic nephritis and hepatic cirrhosis. The grouping of these two series of affections is too vague to admit of analysis. Of the 86 cases, 32 were cases of organic diseases of the heart, and a fatal issue occurred twelve times. Two patients were stated to be suffering from acute endocarditis, but no mention is made whether these were cases of rheumatic infections or malignant endocarditis. Cerebral hæmorrhage was treated 11 times, and proved fatal 9 times.

Among the infective processes, tuberculosis was under treatment 26 times, and was fatal 6 times; diarrhoea and enteritis occurred 50 times, but did not cause death at all; enteric fever was treated 27 times, with 3 deaths; syphilis 9 times; gonorrhoea 9 times; pneumonia 28 times, with four deaths; pleurisy 24 times; bronchitis 27 times; rheumatism (all kinds!) 58 times, with 3 deaths; influenza 8 times; malaria once; tetanus once, the case ending fatally; erysipelas 4 times; septicæmia once, ending fatally; and appendicitis 37 times, with 2 deaths. In addition to the above cases, which appear to depend on an infective organism, there are other classes of cases, some of which may come under this rubric. Nephritis was under treatment 35 times, and was fatal on 13 occasions; metritis was treated 17 times, salpingitis and other diseases of the female genitalia were treated 23 times, and death occurred once; in 70 cases, puerperal conditions required treatment, and proved fatal twice, and there were no less than 109 cases of skin diseases, including gangrene, carbuncles, phlegmon, etc. In three of the last-named cases, a fatal termination ensued.

Cancer called for treatment 31 times, and death took place 9 times. There were 31 cases of alcoholism, with one death, and 6 of diabetes, with two deaths.

The classifications of the operations is better than that of the various disease, but is not ideal, as is seen by the list of operations on new growths, including carcinoma of the lip, neck and maxilla, while in the column dealing with amputations, breast appears 3 times, presumably all for carcinoma, and under the heading gynaecological operations, excision of the cervix was undertaken once, ovariectomy 9 times, hysterectomy 4 times, etc., etc. It is safe to assume that the cancers of the uterus and appendages are entered in the last-named group. Appendicectomy was performed 30 times, and was successful 26 times. One patient died, while 3 were still in hospital, and these cases should therefore be excluded from the year's statistics. In all, 81 abdominal operations were performed, including 26 herniotomies, 5 kidney operations, 5 cholecystotomies, 3 intestinal operations, 10 exploratory operations, and 2 operations for the removal of adhesions. The pituitary gland was removed once, while 11 other operations for the removal of new growths were performed. The total number of throat, nose and ear operations was 78, 9 of which were mastoidectomies. Of the gynaecological operations, 27 out of 79 were curettage, and a small number were minor vaginal operations. The grand total was 422, of which 20 were performed at the close of the year.

During the year the building for the Nurses' Training School, and that of additional surgical wards, were opened on July 2, 1914. The cost of these buildings and of some additions to the out-patients' department was over £6,700, while the equipment and architects' fees amounted to approximately £1,000.

In reference to the medical staff, it is stated in the report that Dr. J. Mowbray Thomson resigned his position as Honorary Physician on account of increasing private practice, and Dr. Dixon was appointed in his place. Since his appointment, he has joined the Expeditionary Forces, and Dr. Winterbottom has been appointed temporarily in his place. Dr. Robertson has been appointed Honorary Surgeon to the Ear, Nose and Throat Department. Dr. L. Neal served his term as Resident Medical Officer, and was succeeded by Dr. Hansen. A second Resident Medical Officer, in Dr. A. Clowes was also appointed.

The financial statement shows that £3,585 14s. 5d. was spent during the year. This represents a cost of £2 8s. 11d.

per patient. It is unfortunate that the average stay per patient is not given, so that it is impossible to reduce this figure to a cost per patient per diem. On the other side of the account, the contribution of the public, including close on £990 from patients, amounted to £2,128, while that of the Government amounted to £1,250, representing 15 months' subsidy. The remainder of the money was obtained from the balance carried over from the previous year.

In the building and furnishing account, two facts stand out prominently. The first is that the sum of £1,500 has been given by the Mater Misericordiae Private Hospital toward the building fund, and the second is that the sum of £9,000 has been advanced without interest for the same purpose by the Sisters of Mercy. The hospital has an overdraft at the bank of £2,855, in spite of these munificent donations. It is not too much to ask of a few of the rich merchants of Queensland that they should group together during the current year to wipe off this hampering overdraft.

#### NEW ZEALAND HOSPITALS AND THE WAR.

The Wellington Hospital Board listened, on May 23, 1915, to a very serious tale told by the Medical Superintendent in regard to the staff of the Hospital. Several house-surgeons had already left for the front, two will be leaving shortly, and the three senior students who will present themselves for their final examination have already accepted positions. The Medical Superintendent feared that the hospital would be left without any house-surgeons. He was attempting to arrange with Wellington practitioners to help him out of the difficulty by taking morning and afternoon duty. The nursing staff had also been depleted. There were only two sisters left, the rest having been claimed by the Military Authority. It was decided that the serious effect of depleting the medical and nursing staff on the hospital be brought to the notice of the Minister of Defence.

A similar position has been created at Christchurch. Eight members of the staff of the Christchurch Hospital are on active duty, and a ninth will be leaving shortly. Eight of the sisters had already gone, and three were on the waiting list. The hospital is housing 230 patients, and the committee have difficulty in securing a sufficient staff to look after them properly. It has been suggested that the assistance of young women as probationers or helps should be sought to lessen the work of the remaining nurses. Several ladies have offered to do the housework in the hospitals, in order that the nurses may be free to attend to their nursing duties.

#### AUCKLAND HOSPITAL AND CHARITABLE AID BOARD.

The first meeting of the newly-elected Auckland Hospital and Charitable Aid Board was held on May 18, 1915. Mr. M. J. Coyle was elected Chairman. It was resolved that the Board meet twice a month, and that three members be appointed to act as a hospital inspection committee.

### Naval and Military News.

Lieutenant-Colonel W. R. Pearless, V.D., one of the medical officers attached to the Canterbury Infantry Battalion, serving at present in the Dardanelles, is reported to have been wounded. Dr. Pearless is a "Barts" man, and took his qualification of M.R.C.S. (Eng.) in 1876. He served in the South African War with the 8th New Zealand contingent. He has been in practice in the Wakefield-Nelson District, New Zealand, for 30 years, and held the position of Medical Officer of Health for the Nelson-Canterbury District up to the end of 1913.

Lieutenant John Stanser Rich, the elder son of Mr. Justice Rich, was killed in action in Flanders on May 17, 1915. Lieutenant Rich was about to commence his medical studies at the University of Sydney. He was on a trip to England when the war broke out, and obtained a commission in the 3rd Battalion of the King's Liverpool Regiment on August 3, 1914. Lieutenant Rich was in his twentieth year,

Dr. J. D. Norris, of Kew, Victoria, has obtained a commission as captain in the A.A.M.C. Dr. Norris took his degree in 1914.

Dr. J. W. Maskell, of Hobart, has been appointed Captain (provisionally and temporarily) in the A.A.M.C.

The following have been appointed Surgeons (temporarily) in the Permanent Naval Forces of the Commonwealth (Sea-going) at the rate of pay of 25s. per diem and rations:—Rupert Hornabrook, Hamilton Kenny, Jack Rupert Law Willis, and Hugh Sylvester McLelland.

#### THE NEW ZEALAND HOSPITAL SHIP.

Extraordinary enthusiasm has been evinced throughout the Dominion in the movement set afoot by His Excellency the Governor. On May 18, 1915, His Excellency issued a message to the people of New Zealand. In this message, attention was called to the very large number of casualties which have occurred in the Dardanelles. The Prime Minister, realizing the strain on those responsible for the medical and hospital arrangements in the Mediterranean, suggested that His Excellency should enquire whether New Zealand could assist in any way in the care of the sick and wounded. On May 16, a reply was received to the effect that, while adequate arrangements had been made, a fully-equipped hospital ship, primarily intended for the conveyance of New Zealanders from the front to the base hospitals, would be most welcome. He therefore appealed to the people to assist him in equipping this ship. His Excellency added in the message that he was aware that the Dominion had contributed with great generosity to the Belgians, but he felt sure that his appeal for their own sick and wounded would meet with a hearty response.

The idea was immediately taken up by the Mayors of each of the four large cities, and by the great newspapers in the Dominion. Within the course of a few days, funds were in existence, and the community poured in their contributions in money and kind with rapidity. The four centres of the Order of St. John set to work, and assistance was forthcoming from municipalities both large and small. On May 23, 1915, His Excellency announced that the Government would supply the empty house, or, in other words, the ship; the public was asked to furnish it. Meetings were organized in the four cities, and committees and sub-committees mapped out their programmes and achieved wonders in the course of days. It is estimated that about £25,000 may be needed to equip the ship with all the material needed. Each Province has set itself the task of collecting its share of this amount. An excellent arrangement has been effected by the postal authorities. Money paid into any post office will be forwarded free of all charges to the fund, while the Under-Secretary of the Department of Internal Affairs and the Bank of New Zealand have also undertaken to receive and forward contributions.

A suggestion has been made that beds might be provided and maintained by various districts, but in view of the wish of His Excellency that the ship shall be a national ship, this plan has been abandoned. The surgical instruments, drugs and other peculiarly medical equipment will be selected by the medical officer in command, and will therefore not be given in kind. The Pharmacy Board has offered to furnish all the drugs and druggists' sundries, and if the offer be accepted, the medical officer will draw up his list of requirements.

### Correspondence.

#### LOCUM TENENTES AND THE WAR.

Sir,—At a time like the present, when everybody is prepared to make sacrifices for the common cause, I would ask you if it is a fair thing for medical men engaged in locum work to exploit their professional brothers as they are doing at present?

I was recently called for three weeks' duty in a fortress, for which my pay, as a captain, is 22s. 6d. a day, with 5s. a day field allowance—the latter goes in the mess fund. On engaging a locum I was told by the agent that it

was impossible to get a man (and this in the city) under £10 10s. a week and all expenses, owing to the demand caused by the war. I was given to understand that this was being paid by men who had actually left for the front, as well as those engaged in the quite as essential work of garrison duty.

One is glad to be of service in these times, even at a pecuniary loss, but one feels that the £2 12s. 6d. per week extra would be better spent in aid of one of the many charitable war funds.

Surely, Sir, it is beneath the dignity of honourable professional men to engage in such exploitation of men who are fulfilling their duty to their country.

Yours, etc.,

"SURGEON CAPTAIN."

May 24, 1915.

#### WHITE AUSTRALIA POLICY.

Sir,—There are several corrections I wish to make in the text of the letter on White Australia published on May 15, 1915.

(1) Mr. Cook desired the nation "to find speedily a solution," not a "speedy solution."

(2) The end of the next paragraph should read, "but to proclaim a prohibition on colour and race purity is to offer the alien races a gratuitous and unnecessary insult."

(3) Race Purity.—Before the word "evidence," delete the word "the," as the assertion does not deserve to be so distinguished.

(4) Race Prejudice.—"Curly locks and flowing tresses, the product of America's domestic affection," not "the produce."

(5) The final word should have been "race," not "creed."

Yours, etc.,

"M.B." (Melb.)

May 24, 1915.

#### OUR RESPONSIBILITY FOR THE INCREASE OF PUERPERAL SEPSIS.

Sir,—Dr. Hone, in his paper on "The Present Position of Notification of Disease in South Australia," refers to the increase of puerperal fever of late years, in these terms: "Yet of all the infectious diseases, this is the one in which we, as medical men, should be most vitally concerned, because its prevention is a matter that is so largely in our own hands." Now, in my opinion, the increase of puerperal fever nowadays is largely due to causes over which the practitioner has no control. Firstly is the practice of women, who, finding themselves pregnant, dose themselves, often up to the time they quicken, with "pills and salts," in order to "bring it on." How often does one hear that Mrs. Blank "nearly went mad" when she found she was pregnant, "and did all she could to bring it on." Then they and the public wonder when this woman nearly loses her life in her confinement, from a rotten placenta or some condition of that sort. Another cause of puerperal sepsis is the state of the uterus before the patient conceives. Chronic endometritis, with an offensive discharge, prolapse and retroflexion, ulcerated and badly torn cervixes, old gonorrhoeal infections; all these predispose towards sepsis, and they are very common in this country. A third cause may be found in the health of the pregnant woman. Many of them are profoundly anæmic, with bad teeth; others suffering from chronic constipation throughout their pregnancy; others living on a diet composed largely of strong tea, meat foods and sugar, so that they come to their labour with their blood out of order. A fourth cause is the ancient "Gamp," so common in the country districts, with no training and no idea of asepsis. The last cause which presents itself to my mind is the filthy and insanitary condition of the houses and backyards, where, perhaps, 30 or 40 fowls will be kept in the small backyard of the cottage, and the people are going in and out all day. What control can a practitioner, who has to work under these conditions, have over them, and yet they are all very common in our experience. We are mostly nowadays clean, sober and careful. Many of us do our midwifery in rubber gloves, and yet we get sapræmia time after time when we have not touched the patient. The sooner the public realize that the modern woman has not the same resisting power

as her grandmother, the sooner will they alter some of the conditions under which the said grandmother appeared to thrive, and also put a stop to other practices their grandmothers knew nothing of, and which constitute the chief reason why modern midwifery is becoming a nightmare to the general practitioner.

Yours, etc.,

A. G. CRIBB.

Millthorpe, N.S.W., May 30, 1915.

#### A CANVASSING DOCTOR.

Sir,—The letter of Dr. Fitzpatrick directs the attention of country medical men to a proceeding which has been known to us in Sydney for some time, but with which we are powerless to deal, inasmuch as the man guilty of this infamous conduct is on the roll of practitioners, though he would not be eligible if he came up now under existing regulations.

Many of my cases have been intercepted by his agents at the railway station or wharves, or in Macquarie Street, which they patrol (it is so easy for them to spot an eye case), and I have only known of it afterwards, when, their money all gone, the victims have come to me here, or at the hospital, and told their tale. Not only have they been intercepted, but also most improperly treated, for example, with the high frequency current for corneal ulcer.

I thought that one way to expose this charlatan was to have a question asked about it in the House; a member promised to do this for me, but has not done so, though I sent him copies of certified statements made by some of the victims. They would have good ground for action, but will not sue, though one man threatened, and got his money back.

Apparently, however, the only thing that can be done is for country doctors, when they send patients to Sydney men, to warn them against any touts they may encounter at railway station, wharves, or in the streets, and to warn them also against the touts at a certain hotel, who work in with the aforesaid doctor. The tout gets the patient to the hotel, and the hotel proprietor, in course of conversation, diverts him to the doctor by extolling his marvellous skill, etc.

Yours, etc.,

F. ANTILL POCKLEY.

Sydney, 31st May, 1915.

#### Personal.

It has been found that information concerning individual members of the British Medical Association in Australia, collected from sources other than direct communication from the member concerned, or notification through the Honorary Secretaries of the Branches, is unreliable, and often erroneous. The object of the Personal column is to inform members of the movements of their friends. The Editor will be greatly indebted to members if they will notify him directly, or through the Honorary Secretary of their Branch, of their movements, more especially in regard to a change of address, or the fact of starting practice, leaving the Commonwealth on an extended holiday, returning to practice, and resignation of appointments. The collaboration of members in this way will render the Personal column a reliable source of information and of interest to readers. Notices should reach Sydney on Monday morning to ensure publication in the Journal of the same week.

Dr. Alan B. McCutcheon has acquired the practice of Dr. G. R. Adcock, of Tarnagulla, Victoria, and will commence practice in the district on June 1, 1915. Dr. McCutcheon has been acting as locum tenens for Dr. H. J. Williams, of Brunswick.

Dr. G. R. Adcock, of Tarnagulla, is leaving for England. Dr. M. E. Dovaston has acquired the practice of Dr. H. S. Bush at Rutherglen, Victoria.

Dr. H. S. Bush, of Rutherglen, has removed to Melbourne, and has commenced practice at 110 Collins Street.

Dr. Margaret McLorinan, of Clayton, Victoria, has acquired the practice of Dr. Mary Henderson, at 90 Collins Street, Melbourne. Dr. Henderson has recently married Dr. A. F. Bell.



Dr. Helen Sexton is on her way to England by the s.s. *Mooltan*. She proposes to offer her services to the British or Federal Red Cross Associations.

Old students of St. Bartholomew's Hospital will learn with interest that Dr. Christopher Addison has been appointed Secretary to Mr. Lloyd George in his new office of Minister of Munitions in the Coalition Government.

Dr. J. Pennefather Ryan, of Gympie, received, on May 19, 1915, a telegram from the Military Authority in Melbourne, informing him that his son, Sergeant C. Pennefather Ryan, of the 15th Battalion, had been wounded in action in the Dardanelles. No further news has been received by Dr. Pennefather Ryan to date.

Dr. W. J. Gething, Chief Quarantine Officer for South Australia, has returned from a two months' holiday trip to Singapore and the East Indies, and has resumed practice at Port Adelaide. Dr. East, late of Gawler, South Australia, who has been acting as Dr. Gething's *locum tenens*, has gone into camp, and will shortly be returning to England.

Dr. J. A. G. Hamilton, Dr. H. Gilbert and Dr. E. W. Griffith will be leaving Australia shortly in charge of transport ships.

Dr. R. H. Marten, of Adelaide, has met with an accident while motoring. Dr. Marten sustained a fractured rib.

It has been announced in the public press that Dr. Athelston Saw, of Perth, Western Australia, has agreed to stand as a candidate for the Metropolitan and Suburban seat in the Legislative Council, rendered vacant by the death of Mr. D. G. Gawler.

### Medical Appointments.

Dr. Hamilton Russell has been re-appointed Honorary Surgeon, Dr. Seton and Dr. Shelton have been appointed Honorary Assistant Surgeons to Out-patients, and Dr. N. E. Gibbs has been appointed Ophthalmic Surgeon to the Alfred Hospital, Melbourne.

Dr. A. E. V. Hartkopf has been appointed Junior Resident Medical Officer at the Children's Hospital, Perth.

Dr. Ellice J. Davies has been appointed Resident Medical Officer at the Queen Victoria Hospital, Melbourne.

Dr. R. A. Goode has been appointed Quarantine Officer at Port Lincoln, in place of Dr. E. Kinmont. The latter has moved to Adelaide, and has been appointed Medical Officer to the Destitute Poor.

Dr. F. Willcox has been appointed Acting Assistant Gynaecologist at the Adelaide Hospital during Dr. T. G. Wilson's absence on service.

Dr. A. Campbell Magarey has been appointed Acting Assistant Surgeon at the Adelaide Hospital, during Dr. Cudmore's absence on service.

Dr. C. Duguid has been appointed Acting Assistant Physician at the Adelaide Hospital, during Dr. de Crespigny's absence on service.

Dr. G. R. West has been appointed Acting Medical Superintendent at the Adelaide Hospital, during Dr. Yeatman's absence on service.

### Medical Appointments Vacant, etc.

For announcements of medical appointments vacant, assistants, *locum tenentes* sought, etc., see "Advertiser," page xvi.

Bundaberg General Hospital, Medical Officer.  
Marrickville Cottage Hospital, Temporary Honorary Anaesthetists.

### Books Received.

WAR SURGERY, by Edmond Delorme, translated by H. de Méric, 1915. London: H. K. Lewis; Crown 8vo., pp. 248, with illustrations. Price, 3s. net.

SWANZY'S HANDBOOK OF THE DISEASES OF THE EYE, AND THEIR TREATMENT, edited by Louis Werner, M.B., F.R.C.S.L., 11th edition, 1915. London: H. K. Lewis; Demy 8vo., pp. 646, with 9 coloured plates and 261 text illustrations. Price, 12s. 6d. net.

LEPER HOUSES AND MEDIEVAL HOSPITALS—THE FITZPATRICK LECTURES, by Charles A. Mercier, M.D., 1915. London: H. K. Lewis; Royal 8vo., pp. 47. Price, 1s. net.

### Diary for the Month.

- June 9.—S. Sydney Medical Association, General.
- June 9.—Melbourne Pediatric Society.
- June 10.—Vict. Branch, B.M.A., Council.
- June 11.—N.S.W. Branch, B.M.A., Clinical.
- June 11.—S. Aust. Branch, B.M.A., Council.
- June 11.—Tas. Branch, B.M.A., Monthly and Council.
- June 15.—N.S.W. Branch, B.M.A., Executive and Finance Committee, Ethics Committee.
- June 16.—Vict. Branch, B.M.A., Clinical.
- June 18.—Q. Branch, B.M.A., Council.
- June 19.—W. Aust. Branch, B.M.A., General.

### Important Notice.

Medical practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429 Strand, London, W.C.

Branch.	APPOINTMENTS.
QUEENSLAND. (Hon. Sec. B.M.A. Building, Adelaide Street, Brisbane).	Brisbane United F.S. Institute. F.S. Lodges at Longreach.
WESTERN AUSTRALIA. (Hon. Sec. 230 St. George's Terrace, Perth).	Swan District Medical Officer. All Contract Practice Appointments in W.A.
NEW SOUTH WALES. (Hon. Sec. 30-34 Elizabeth Street, Sydney).	Australian Natives Association. Balmain United F.S. Dispensary. Burwood District F.S. Institute. Canterbury United F.S. Dispensary. Goulburn F.S. Association. Leichhardt and Petersham Dispensary. M.U. Oddfellows Med. Inst., Elizabeth Street, Sydney. Marrickville United Friendly Societies' Dispensary. Mullumbimby District Friendly Societies. N.S.W. Ambulance Association and Transport Brigade. N. Sydney United F.S. People's Prudential Benefit Society. Phoenix Mutual Provident Society. F.S. Lodges at Braidwood. F.S. Lodges at Casino. F.S. Lodges at Lithgow. F.S. Lodges at Mudgee. F.S. Lodges at Orange. F.S. Lodges at Parramatta, Penrith, and Auburn. F.S. Lodges at Wellington. Killingworth Colliery, Newcastle. Seaham Colliery No. 1, Newcastle. Seaham Colliery No. 2, Newcastle. West Wallsend Colliery, Wallsend.
SOUTH AUSTRALIA. (Hon. Sec. 3 North Terrace, Adelaide).	The F.S. Medical Assoc. Incorp., Adelaide.

### EDITORIAL NOTICES.

Manuscripts forwarded to the office of this Journal cannot under any circumstances be returned.

Original articles forwarded for publication are understood to be offered to "The Medical Journal of Australia" alone, unless the contrary be stated. All communications should be addressed to "The Editor," "The Medical Journal of Australia," B.M.A. Building, 30-34 Elizabeth Street, Sydney, New South Wales.

The following periodicals are required by the Librarian of the New South Wales Branch of the British Medical Association to complete the series for binding. Members who have borrowed these journals are requested to return them as soon as possible.

*Lancet*, November 7, 1914.  
*Lancet*, November 14, 1914.